Major Commanders Symposium

SWE
Sustainment and Modernization Team Update
CAPT Dave Lewis

SMT Mission Statement

"To deliver the required current and future readiness from the support processes at the right time, right place, and right cost - in support of the overall SWE mission. The CFT will consider end-to-end material and maintenance processes from requirements definition, through technical standards development, to include procurement, installation, and sustainment - through disposal and/or replacement for all SWE systems. Team focus will be on efficient repeatable processes that enable continuous improvement."

SWE Oversight

SWE Board of Directors (BOD)

* *EXCOMM*

*VADM Sullivan, NAVSEA
*RADM Curtis, DCNSF/CNSL
*RADM McCullough, OPNAV N8F
*MGEN Benes, OPNAV N85
*RDML Goddard, PEO SHIPS *RDML Campbell, OPNAV N43B

*VADM Etnyre, CNSF
RADM Thompson, NAVSUP RDML Klein, INSURV OPNAV N41
RADM Reilly, MSC
RADM Hugel, SEA 04
RDML Orzalli, RMC
Commander RDML

RDML McManamonV-NAVSEA
RDML Shatynski , CNSF
RDML Guillory OPNAV N86B RDML Deets, NNWC
RDML Barnett, N85B
Jeff Klein, SPAWAR

VADM Sullivan, NAVSEA
Chief Operating Officer

Communications Team
AO: CDR Campbell, CNSF PAO

RADM McCullough, OPNAV N86 Chief Financial Officer

RADM Curtis, DCNSF Chief Readiness Officer

Sustainment & Modernization Team
FLAG Lead: RDML McManamon
AO: CNSF N43 CAPT Lewis
Co-AO:NAVICP85 CAPT Costello
- Logistics (Parts/Food/Fuel/Ordnance)
- Maintenance
- Modernization

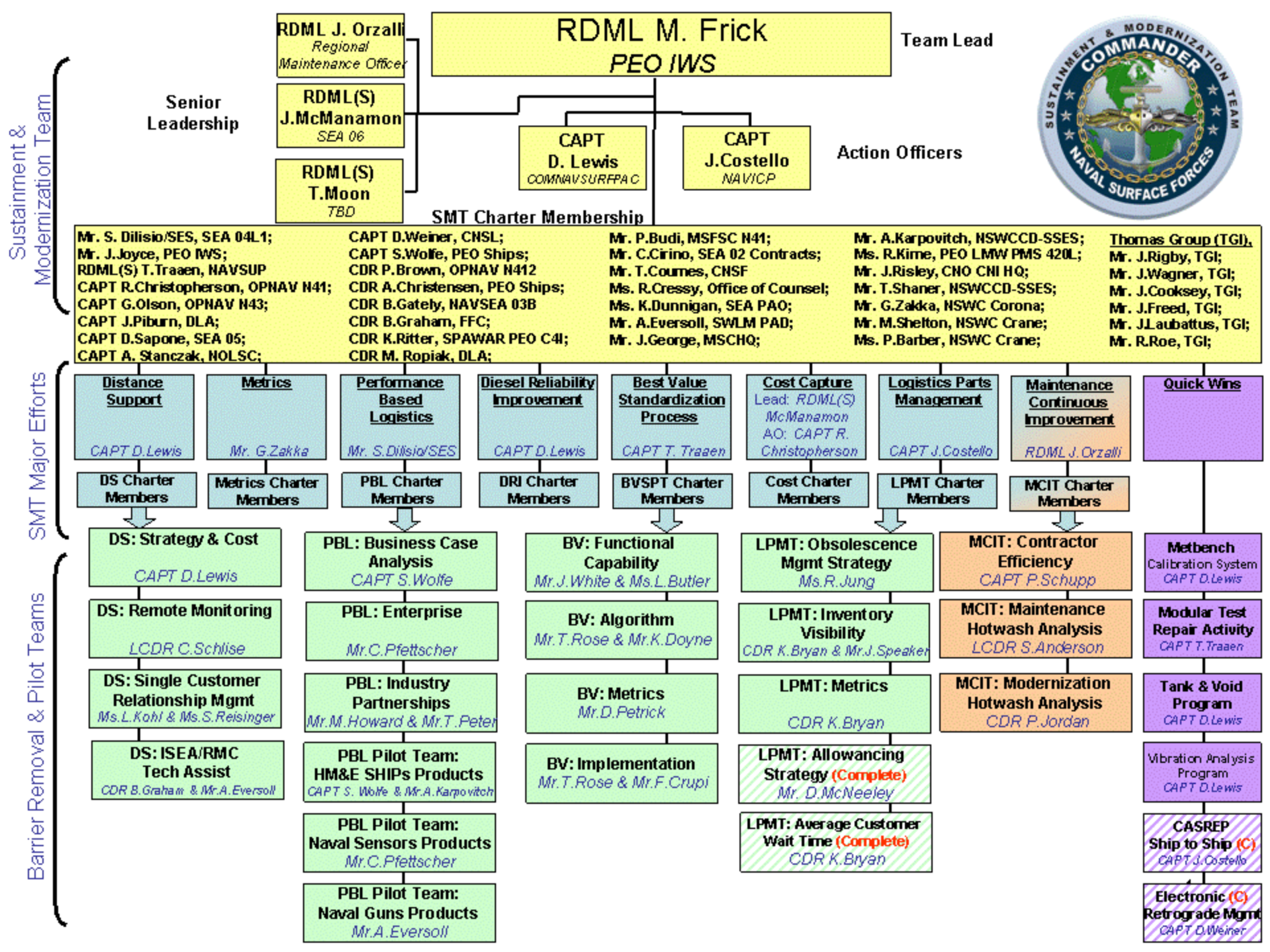
Personnel Readiness Team
FLAG Leads: RDML Hebner / RDML Shatynski
AO: CNSF N1 CDR Deehr
Co-AO: PERS-4 CAPT Sharpe
- Requirements Planning
- Personnel Assignment
- Individual Training
- Unit / Intermediate / Sustainment Training

Strategic Financial Management Team
FLAG Leads: RDML Carr
AO: CNSF N41 CAPT Davis
Co-AO: CNSF N8 CAPT Kaufmann
- Strategic Financial Planning
- Financial Reporting / Metrics

CLASSRONS

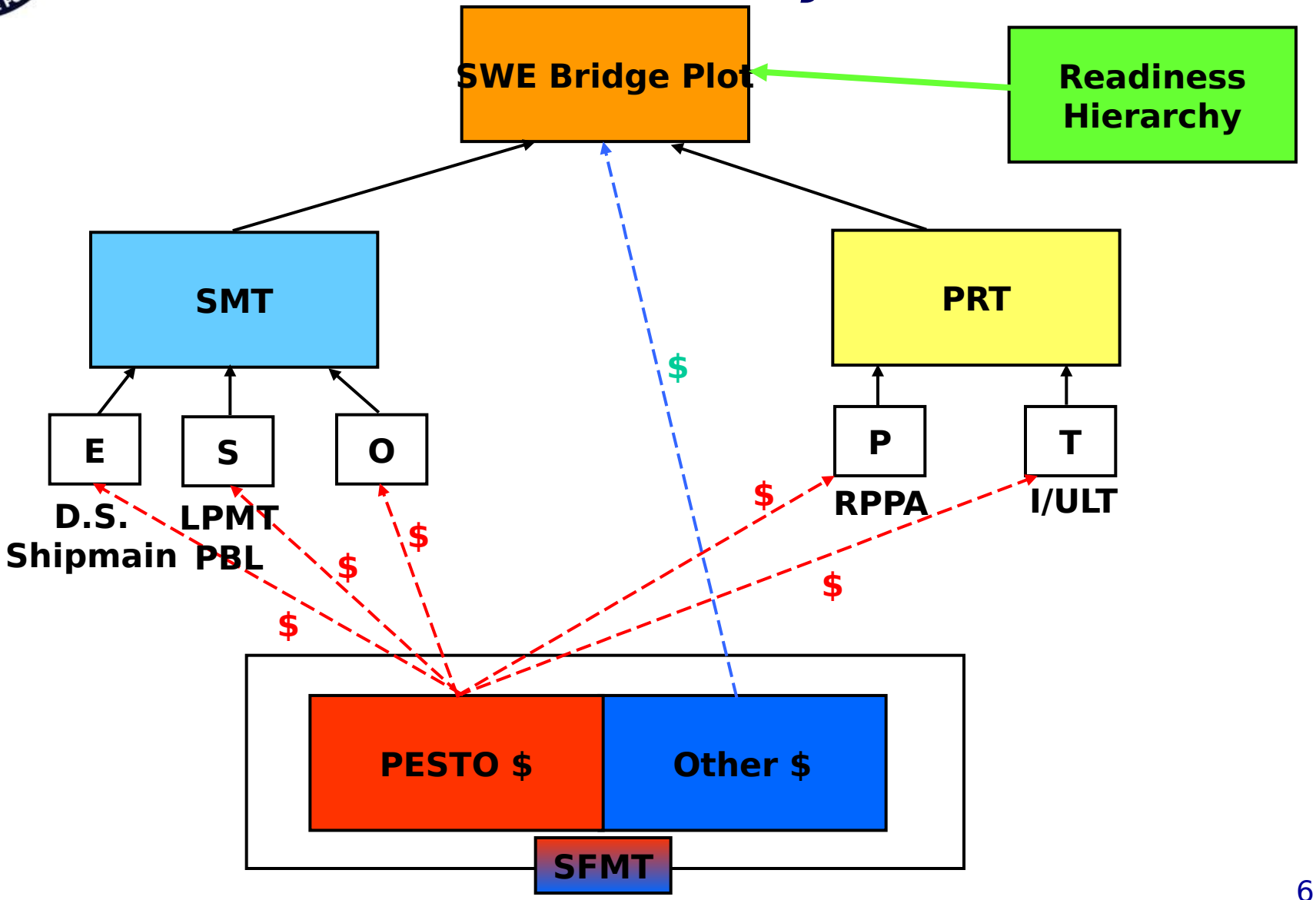
Over-arching Metrics Team
AO: Mr. Warner, CNSF N8A

As of: 22May07


Sustainment & Modernization Team
RDML J. Orzalli
Regional Maintenance Officer
RDML M. Frick
PEO IWS
Team Lead
Senior Leadership
RDML(S) J.McManamon
SEA 06
RDML(S) T.Moon
TBD
CAPT D. Lewis
COMNAVSURFPAC
CAPT J.Costello
NAVICP
Action Officers
SMT Charter Membership
Mr. S. Dilisio/SES, SEA 04L1;
Mr. J.Joyce, PEO IWS;
RDML(S) T.Traaen, NAVSUP
CAPT R.Christopherson, OPNAV N41;
CAPT G.Olson, OPNAV N43;
CAPT J.Piburn, DLA;
CAPT D.Sapone, SEA 05;
CAPT A. Stanczak, NOLSC;
CAPT D.Weiner, CNSL;
CAPT S.Wolfe, PEO Ships;
CDR P.Brown, OPNAV N412
CDR A.Christensen, PEO Ships;
CDR B.Gately, NAVSEA 03B
CDR B.Graham, FFC;
CDR K.Ritter, SPAWAR PEO C4I;
CDR M. Ropiak, DLA;
Mr. P.Budi, MSFSC N41;
Mr. C.Cirino, SEA 02 Contracts;
Mr. T.Coumes, CNSF
Ms. R.Cressy, Office of Counsel;
Ms. K.Dunnigan, SEA PAO;
Mr. A.Eversoll, SWLM PAD;
Mr. J.George, MSCHQ;
Mr. A.Karpovitch, NSWCCD-SSES;
Ms. R.Kime, PEO LMW PMS 420L;
Mr. J.Risley, CNO CNI HQ;
Mr. T.Shaner, NSWCCD-SSES;
Mr. G.Zakka, NSWC Corona;
Mr. M.Shelton, NSWC Crane;
Ms. P.Barber, NSWC Crane;
Thomas Group (TGI),
Mr. J.Rigby, TGI;
Mr. J.Wagner, TGI;
Mr. J.Cooksey, TGI;
Mr. J.Freed, TGI;
Mr. J.Laubattus, TGI;
Mr. R.Roe, TGI;
SMT Major Efforts
Distance Support
CAPT D.Lewis
Metrics
Mr. G.Zakka
Performance Based Logistics
Mr. S.Dilisio/SES
Diesel Reliability Improvement
CAPT D.Lewis
Best Value Standardization Process
CAPT T. Traaen
Cost Capture
Lead: RDML(S) McManamon
AO: CAPT R. Christopherson
Logistics Parts Management
CAPT J.Costello
Maintenance Continuous Improvement
RDML J. Orzalli
Quick Wins
DS Charter Members
Metrics Charter Members
PBL Charter Members
DRI Charter Members
BVSPT Charter Members
Cost Charter Members
LPMT Charter Members
MCIT Charter Members
Barrier Removal & Pilot Teams
DS: Strategy & Cost
CAPT D.Lewis
DS: Remote Monitoring
LCDR C.Schlise
DS: Single Customer Relationship Mgmt
Ms.L.Kohl & Ms.S.Reisinger
DS: ISEA/RMC Tech Assist
CDR B.Graham & Mr.A.Eversoll
PBL: Business Case Analysis
CAPT S.Wolfe
PBL: Enterprise
Mr.C.Pfettscher
PBL: Industry Partnerships
Mr.M.Howard & Mr.T.Peter
PBL Pilot Team: HM&E SHIPs Products
CAPT S. Wolfe & Mr.A.Karpovitch
PBL Pilot Team: Naval Sensors Products
Mr.C.Pfettscher
PBL Pilot Team: Naval Guns Products
Mr.A.Eversoll
BV: Functional Capability
Mr.J.White & Ms.L.Butler
BV: Algorithm
Mr.T.Rose & Mr.K.Doyne
BV: Metrics
Mr.D.Petrick
BV: Implementation
Mr.T.Rose & Mr.F.Crupi
LPMT: Obsolescence Mgmt Strategy
Ms.R.Jung
LPMT: Inventory Visibility
CDR K.Bryan & Mr.J.Speaker
LPMT: Metrics
CDR K.Bryan
LPMT: Allowancing Strategy (Complete)
Mr. D.McNeeley
LPMT: Average Customer Wait Time (Complete)
CDR K.Bryan
MCIT: Contractor Efficiency
CAPT P.Schupp
MCIT: Maintenance Hotwash Analysis
LCDR S.Anderson
MCIT: Modernization Hotwash Analysis
CDR P.Jordan
Metbench Calibration System
CAPT D.Lewis
Modular Test Repair Activity
CAPT T.Traaen
Tank & Void Program
CAPT D.Lewis
Vibration Analysis Program
CAPT D.Lewis
CASREP Ship to Ship (C)
CAPT J.Costello
Electronic (C) Retrograde Mgmt
CAPT D.Weiner

METRICS

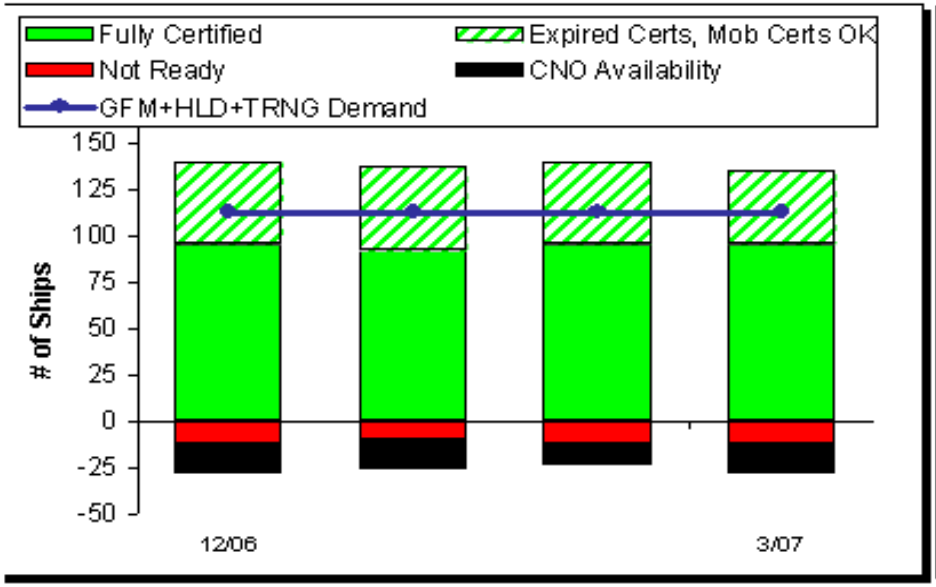
Process Team Bridge Plot Hierarchy



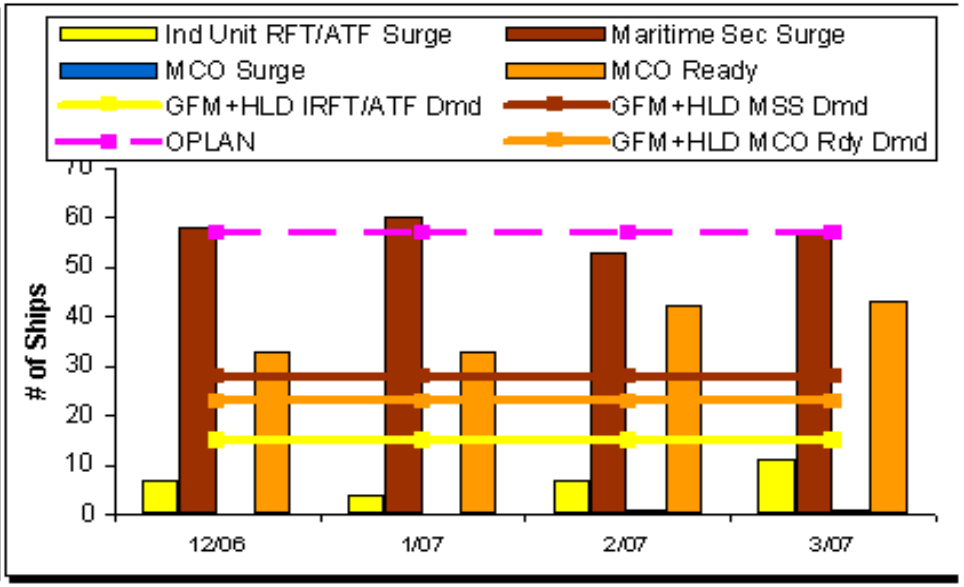
SWE Bridge Plot as of 3-31-07

SWE Fleet = 163 Ships

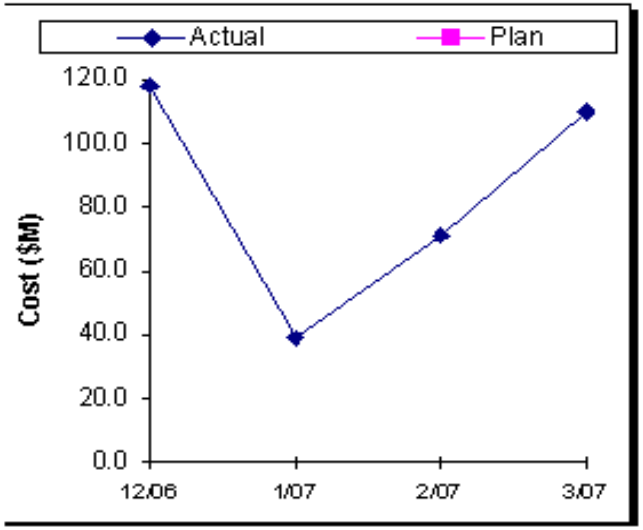
ULT WRFT



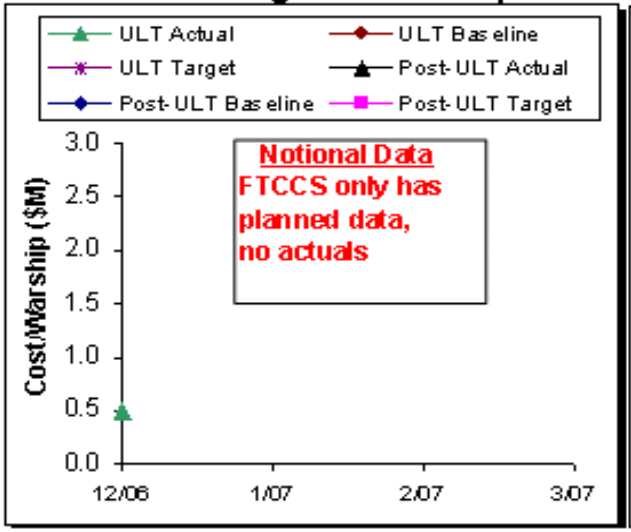
FRP WRFT



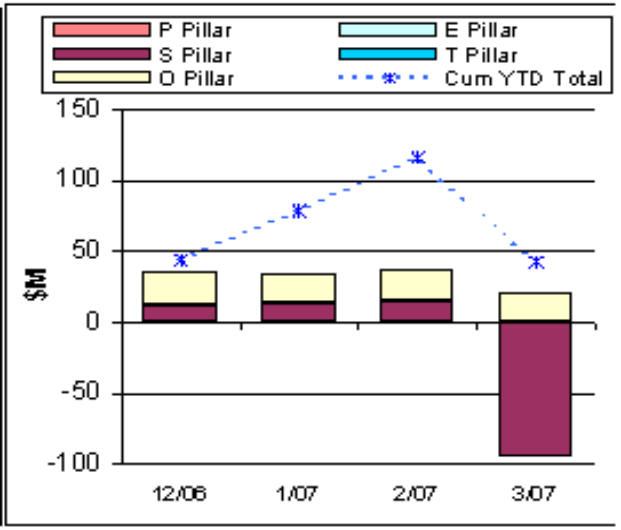
Maintenance Cost



Training Cost/Warship

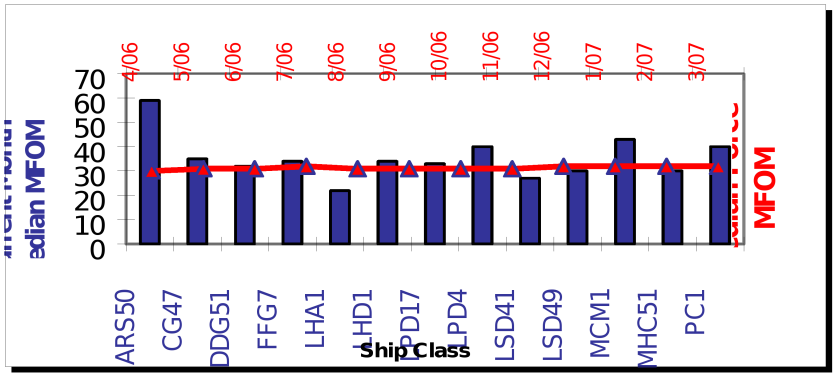


Operational Cost Delta-to-Plan

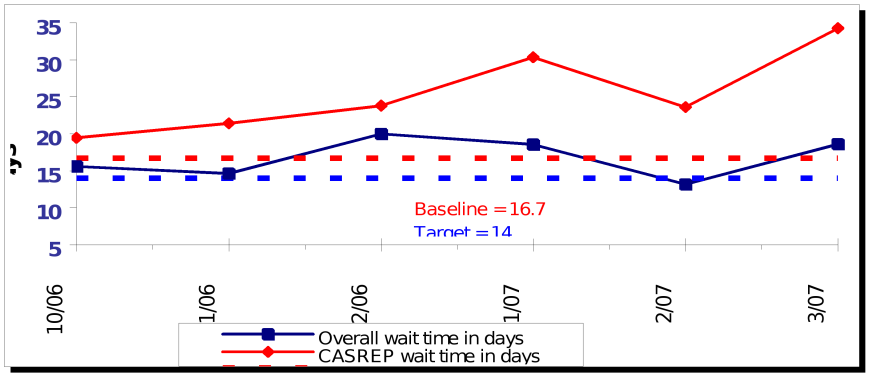


SMT Existing Metrics

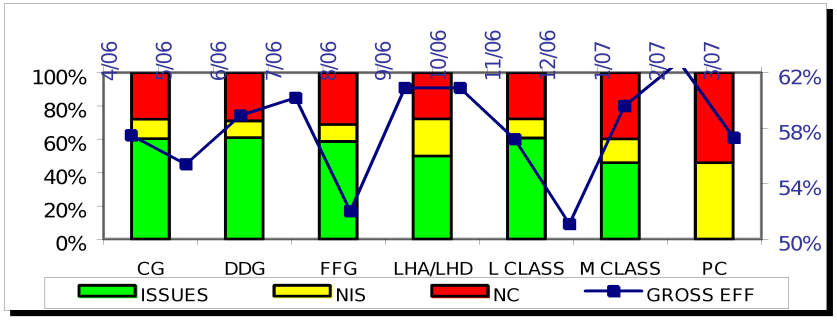
Force MFOM 1.0



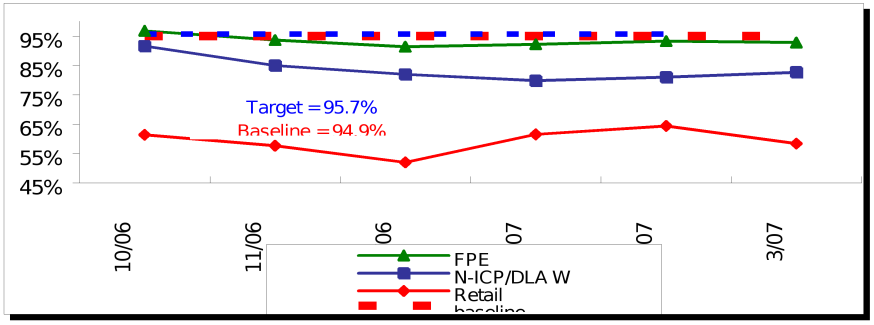
CASREP & ACWT



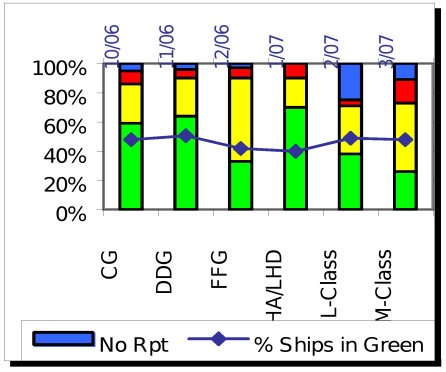
Ship Req. Summary



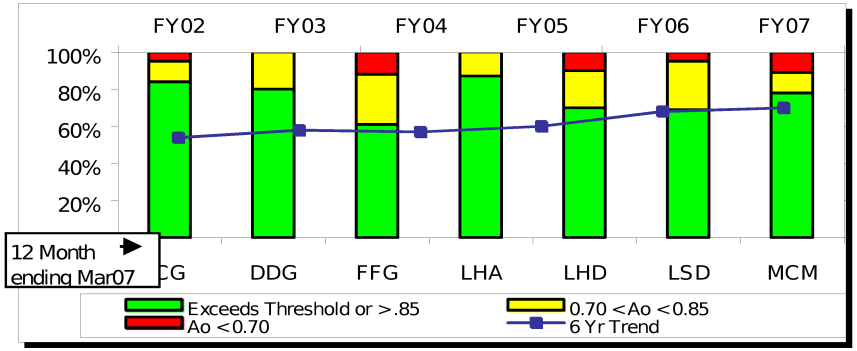
First Pass Effectiveness



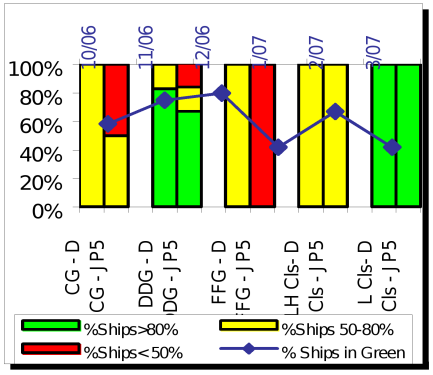
Provisions Status



Weapons System Ao



Fuel Status

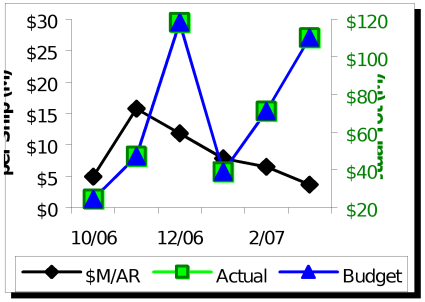


Mar07

SMT Future State Bridge Plot

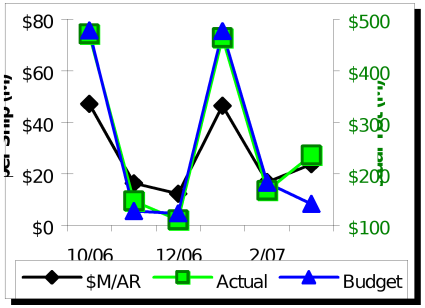
C

MFOM 2.0 Cost vs Readiness



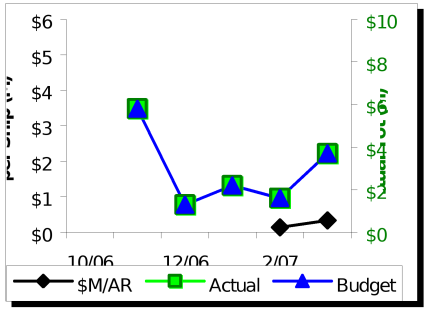
C

SFOM Cost vs Readiness

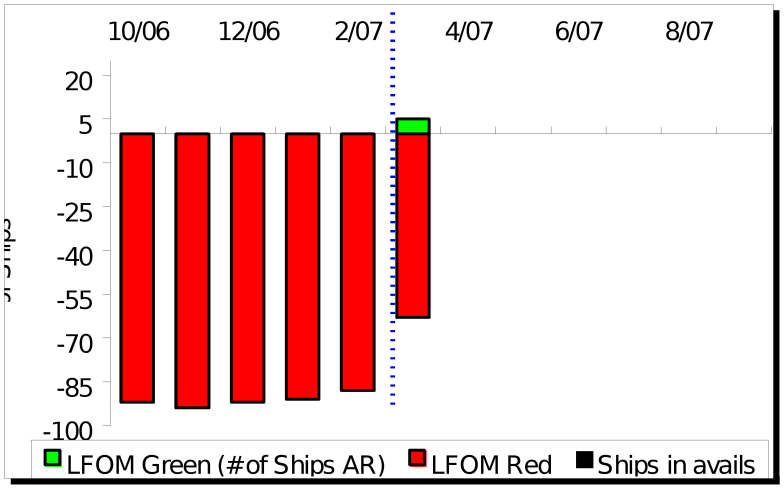


C

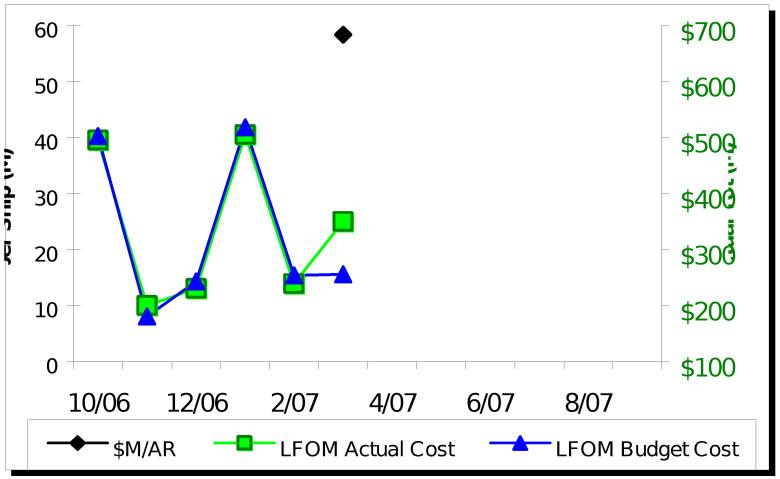
OFOM Cost vs Readiness



LFOM Assignment Readiness (AR) *



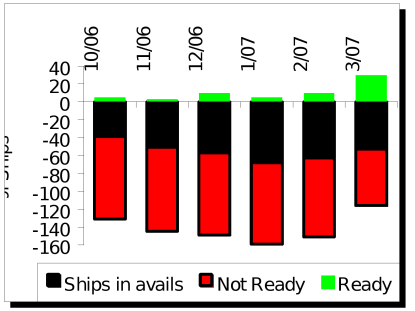
LFOM Cost vs Readiness



P

MFOM 2.0 Assignment Readiness

CR



*

P

SFOM Assignment Readiness

CR

*

OFOM Assignment Readiness

CR

*

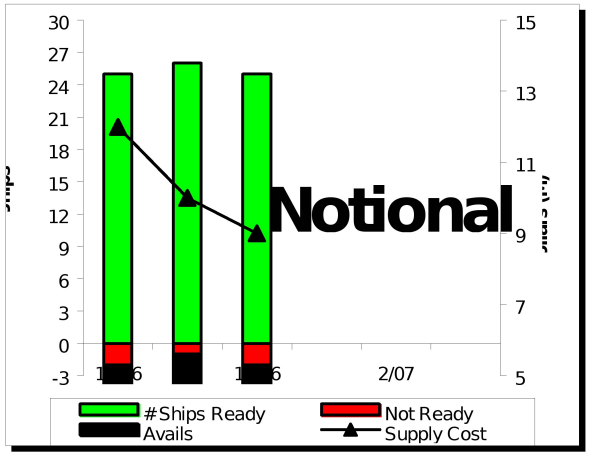
C – Cost **P – Process Teams** **CR – CLASSRON**

***FOM Metrics complete, FFC Data Quality issue being addressed**

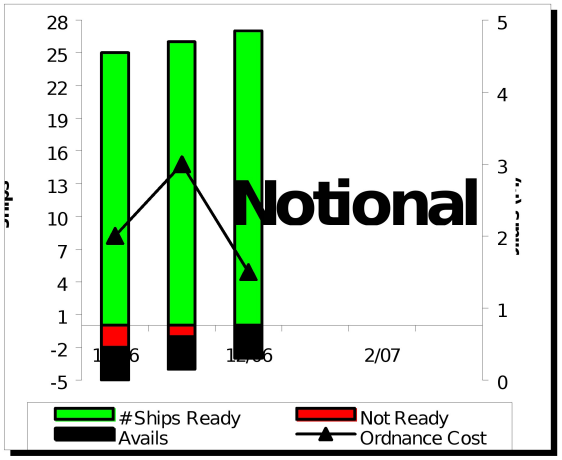
FFG CLASSRON Bridge Plot

MFOM 2.0 Cost vs Readiness

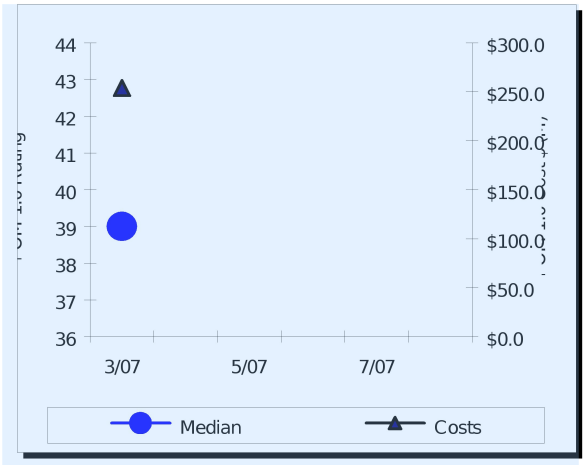
SFOM Cost vs Readiness



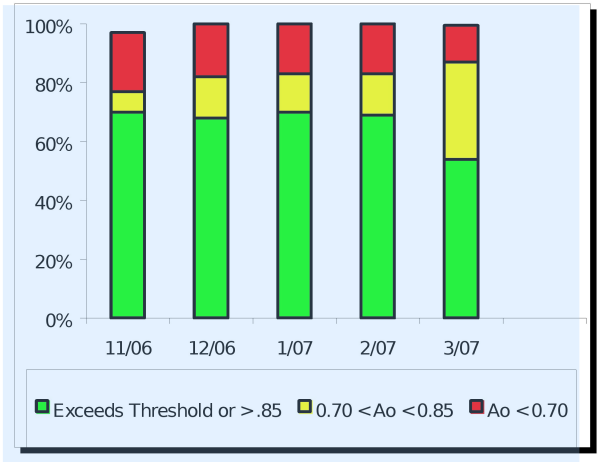
OFOM Cost vs Readiness



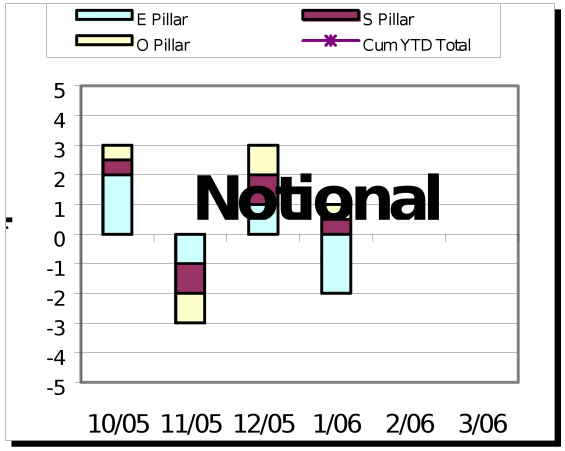
FFG MFOM 1.0



FFG System Ao



Operational Cost Delta-to-Plan



2007 Top 5 High Cost Items

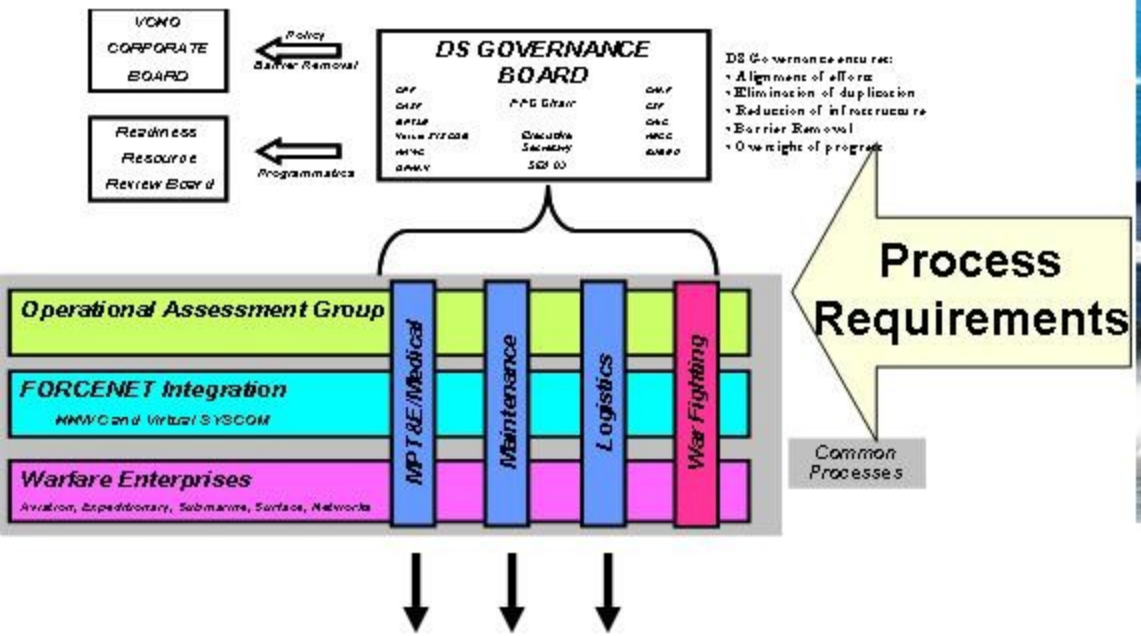
Thermal Imager	$713,993
Backplane	$495,000
Recoil Cylinder	$193,200
Power supply 44KVDC	$184,776
RF Module BD3	$56,720

2007 Top 5 Low Reliability Items

Switch Power Supply	$107,259
Soleniod Valve	$7,560
Power Module	$4,018
Tube Switch	$1,353
Circuit Breaker	$191

DISTANCE SUPPORT

DS GOVERNANCE

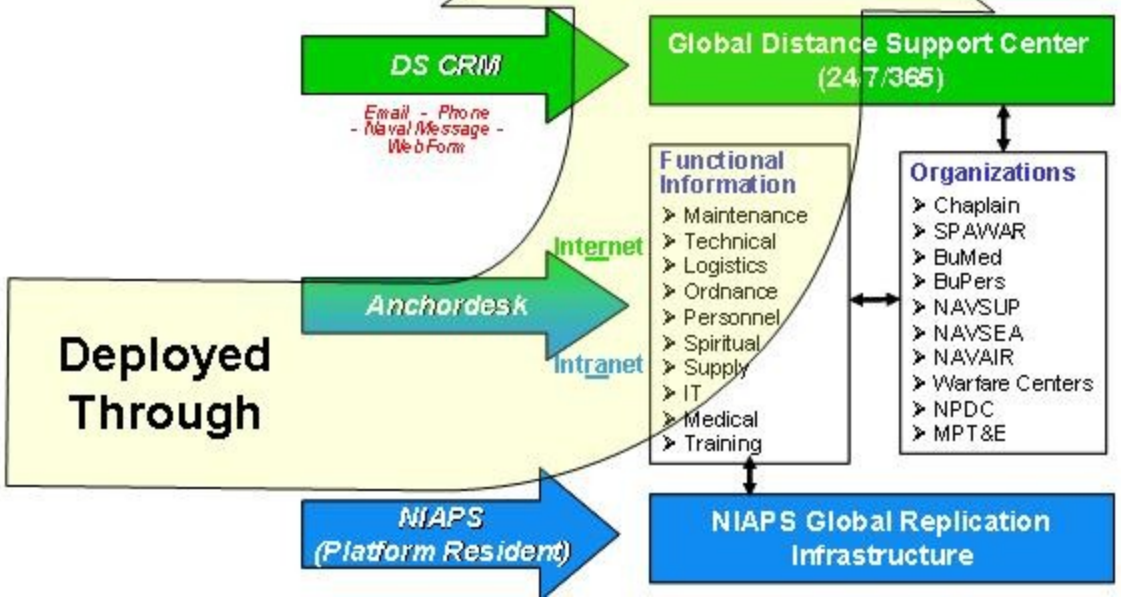


WARFARE ENTERPRISES

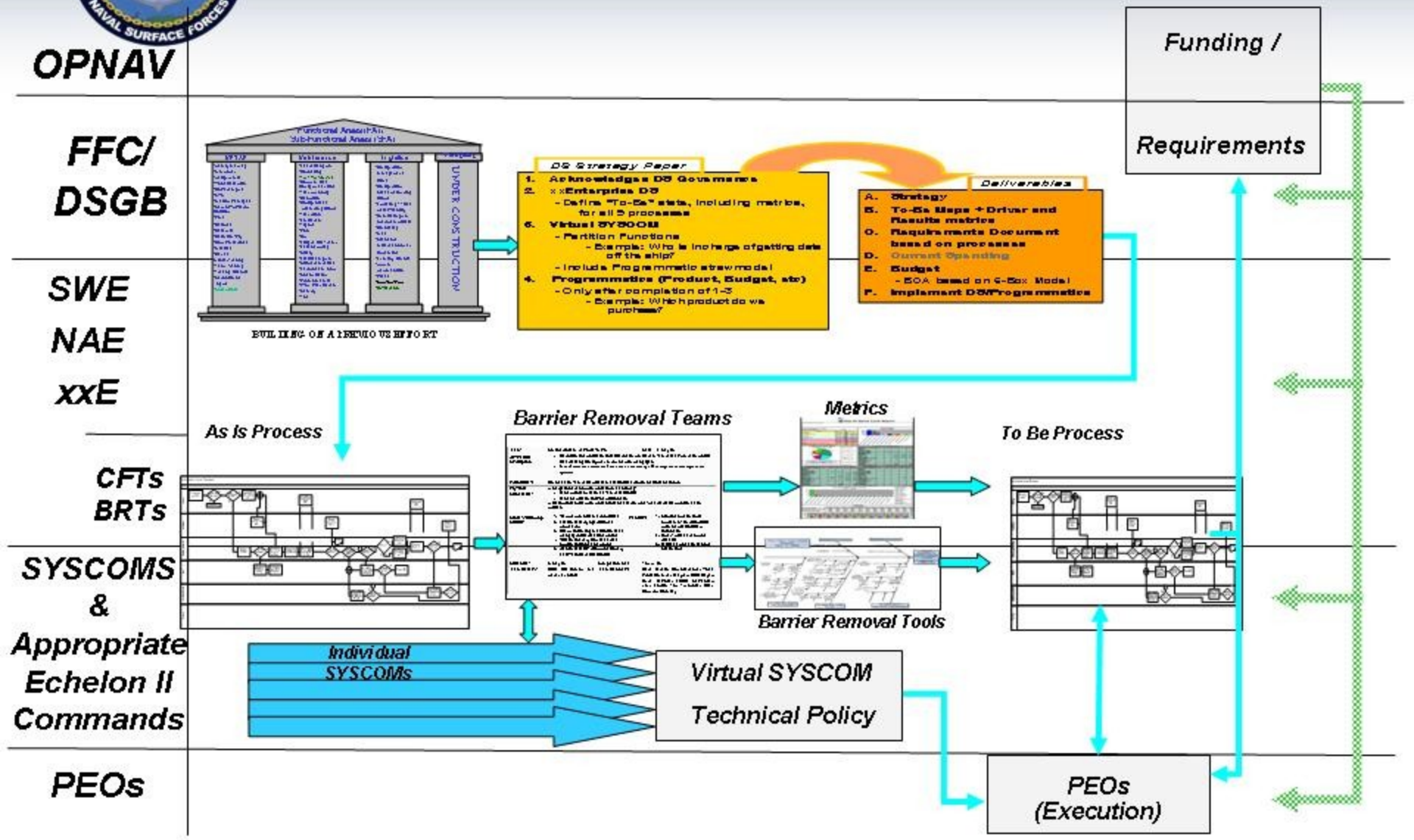
ENTERPRISE PROCESS/APPLICATIONS

- MPT&E
  - Sea Warrior
- Medical
  - Telemedicine
- Maintenance
  - Remote Monitoring/Diagnostics
  - Technical Assist
  - Repair
- Logistics
  - One Touch Supply
  - PBL - Performance Based Logistics

DS SYSTEMS POR



DS Enterprise Process Approach



SWE DS Implementation

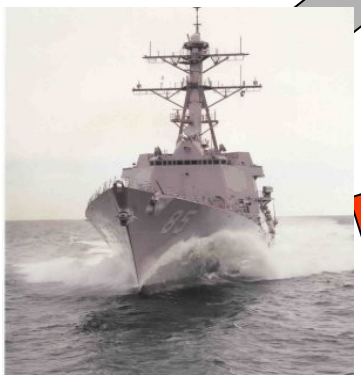
DS Strategy Paper

1. Acknowledges DS Governance
2. SWE DS
   - Define "To-Be" state, including metrics, for all 9 processes
3. Virtual SYSCOM
   - Partition Functions
     - Example: Who is in charge of getting data off the ship?
   - Include Programmatic strawmodel
4. Programmatics (Product, Budget, etc)
   - Only after completion of 1-3
     - Example: Which product do we purchase?

Deliverables

A. Strategy ☑
B. To-Be Maps + Driver and Results metrics ☑
C. Requirements Document based on processes ☑
D. Current Spending ☑
E. Budget
   - BCA based on 5-Box Model
F. Implement DS/Programmatics

ICAS TODAY



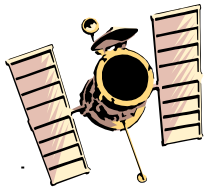
ICAS
Collects Data

Distance Support
DS 2.0

Batc

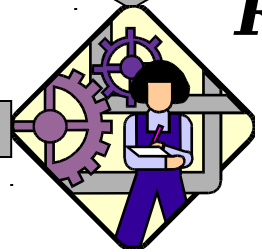
Batc

SNAIL MAIL



MELS
IPARs
Formats & Presents Reports

RMC



Evaluate IPAR Information, Add SME comments

Batc

TO USS NEVER SAIL
FROM SWRMC

SUBJECT: IPAR REPORT

1. RMC REPS HAVE COMPLETED REVIEW OF
IPAR BASED ON ICAS DATA
2. DATA INDICATES PROBLEM WITH GTG #1
3. RECOMMEND BORE SCOPE UNIT

IPAR sent to Ship via e-mail

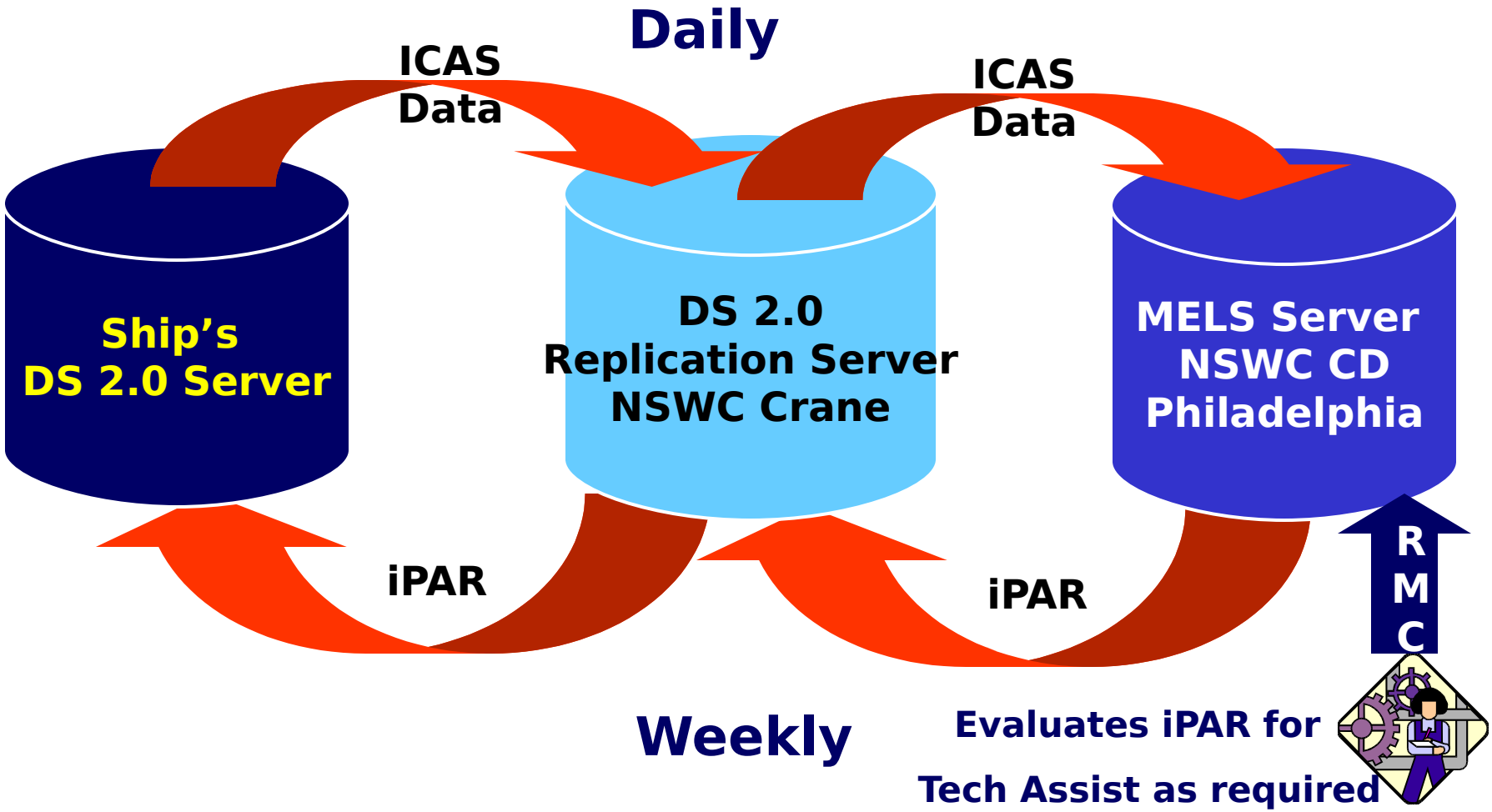
20+ DAY PROCESS

Remote Monitoring Today

- Integrated Condition Assessment System (ICAS)
  1. Remote Monitoring Utility (RMU) - Connects ICAS to DS 2.0
     - 28 DDGs
     - Data automatically transmitted to NSWCCD via DS 2.0
     - ICAS Performance Analysis Report (iPAR) generated every 2 weeks
     - RMC SMEs review iPAR and add comments
  2. Manual ICAS Data Submission
     - 8 DDGs, 10 CGs, 11 FFGs, 6 Amphibs, 14 MCMs
     - Ships burn monthly ICAS data to CD and mails to MARMC/SWRMC
     - iPAR generated when received
     - RMC SMEs review iPAR and add comments

49 ICAS ships must mail in their data (63%)

iPAR 2B Process

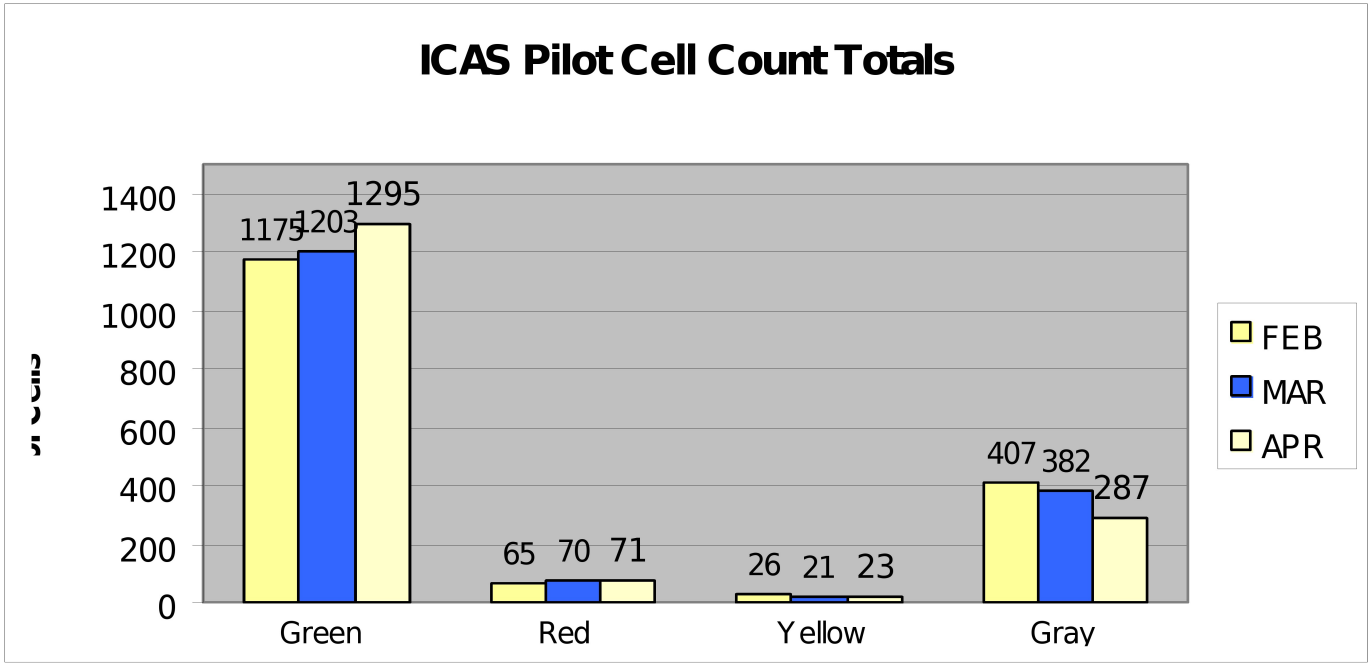


Ship gets 1 iPAR / week

Pilot ICAS Data Cell Counts

SHIP		Ave Sat	Ave Red	Ave Yellow	Ave Gray	Notes
PREBLE	Feb	212	13	3	24	Gray Cells primarily on AC & CPP
	Mar	207	16	6	26	
	Δ	-5	+3	+3	+2	Gray cells indicate Analysis for the IPAR was not available.
	%Δ	-2%	+23%	+100%	+8%	
PINCKNEY	Feb	217	8	7	35	Gray Cells primarily on AC & CPP
	Mar	215	12	3	38	
	Δ	-2	+4	-4	+3	
	%Δ	-1%	+50%	-57%	+8%	
MILIUS	Feb	177	8	1	121	Gray Cells primarily on AC, HP Air & REFR
	Mar	181	9	2	114	
	Δ	+4	+1	+1	-7	
	%Δ	+2%	+12%	+100%	-6%	
SHOUP	Feb	201	11	2	40	Gray Cells primarily on AC, GTG & CPP
	Mar	204	13	3	34	
	Δ	+3	+2	+1	-6	
	%Δ	+2%	+18%	+50%	-15%	
CHAFEE	Feb	198	17	8	32	Gray Cells primarily on AC & CPP
	Mar	206	13	3	32	
	Δ	+8	-4	-5	0	
	%Δ	+4%	-23%	-63%	0%	
HIGGINS	Feb	172	8	5	155	Gray Cells primarily on AC, HP Air & CPP
	Mar	190	7	4	138	SWRMC ICAS Groom 3-26
	Δ	+18	-1	-1	-17	

ICAS Data Cell Trends



- ***Pilot Ship Gray Cell Ave Total Dropped from 25% to 17% in April***
  - ***Due Mostly From Higgins Groom Performed by SWRMC***
- ***Systems Most Affected By Gray Cells:***
  - ***AC, HP Air, REFR, CPP***

Gray Cell Impact When ICAS Is "Maintained" Properly. Software and Hardware Maintenance Needs To Be Implemented on ICAS System

USS Higgins (DDG 76) GTM PERF System Summary

2-13-07

	Priority	GTM1A 02/05/2007	GTM1B 02/05/2007	GTM2A 02/05/2007	GTM2B 02/05/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Unsat	Sat	Sat	Unsat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

3-28-07

	Priority	GTM1A 03/03/2007	GTM1B 03/03/2007	GTM2A 03/03/2007	GTM2B 03/03/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Sat	Sat	Sat	Unsat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

3-13-07

	Priority	GTM1A 03/03/2007	GTM1B 03/03/2007	GTM2A 03/03/2007	GTM2B 03/03/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Sat	Sat	Sat	Unsat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

4-03-07

	Priority	GTM1A 03/03/2007	GTM1B 03/03/2007	GTM2A 03/03/2007	GTM2B 03/03/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Sat	Sat	Sat	Unsat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

3-20-07

	Priority	GTM1A 03/03/2007	GTM1B 03/03/2007	GTM2A 03/03/2007	GTM2B 03/03/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Sat	Sat	Sat	Unsat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

4-10-07

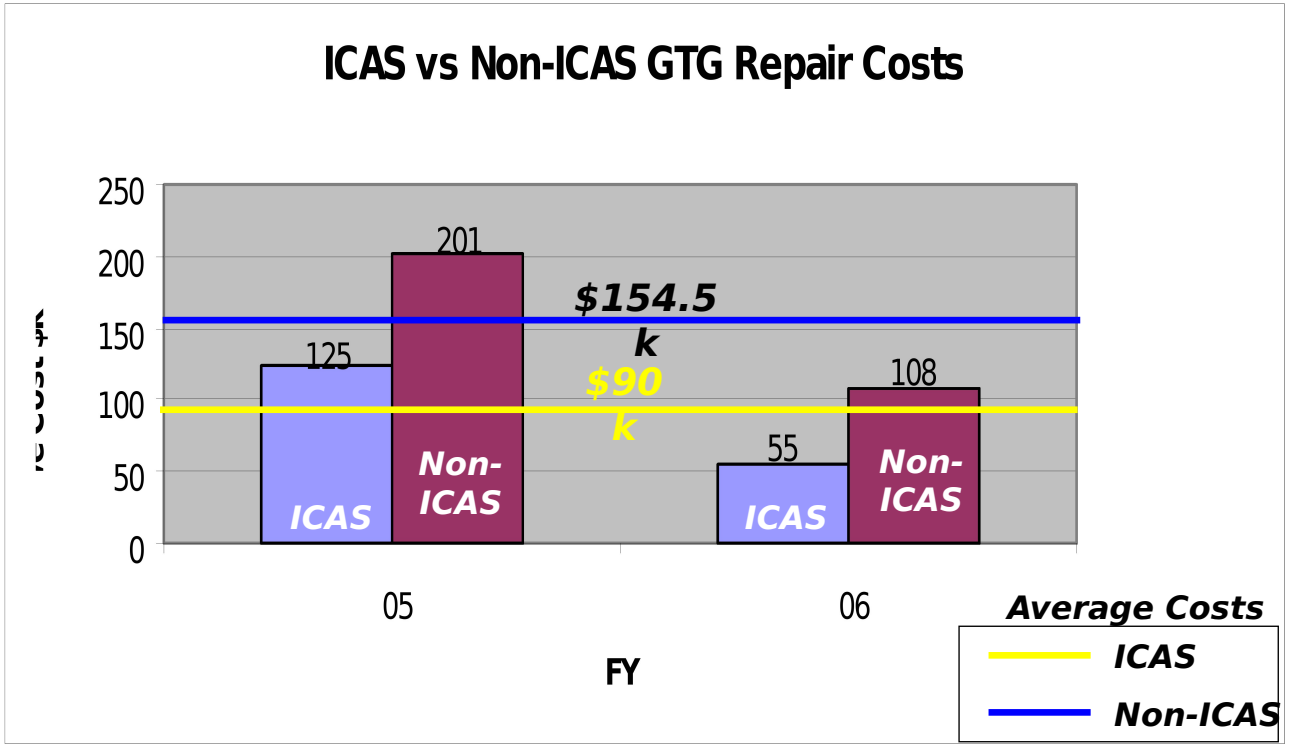
	Priority	GTM1A 04/06/2007	GTM1B 04/08/2007	GTM2A 04/06/2007	GTM2B 04/09/2007
GG Speed High	1	Sat	Sat	Sat	Sat
PT Speed High	1	Sat	Sat	Sat	Sat
Engine Performance	1	Sat	Sat	Sat	Sat
CDP Calibration Error	2	Sat	Sat	Sat	Sat
PT2 Calibration Error	2	Sat	Sat	Sat	Sat
PT5.4 Calibration Error	2	Sat	Sat	Sat	Sat
T5.4 PT Inlet Gas Temp High (Above Idle)	2	Sat	Sat	Sat	Sat

IPAR Trends are showing GT Improvements with crew feedback reports validating maintenance actions

Barrier Update

- Current RMU DDG's in pilot 2B:
  - Pinckney, Preble, Higgins, Chafee, Shoup, Milius
- West Coast DDG Pilot 2B's planned :
  - Decatur DDG-73 (SD)
  - McCampbell DDG-85 (SD)
  - Halsey DDG-97 (SD)
  - Lassen DDG-82 (Yoko)
  - Mustin DDG-89 (Yoko)
- CG/FFG RMU + HSF; USS Elrod (FFG-55), Install planned for 16-20 Apr.
- CDS, Experts Scrubs and Standard Logs
  - POA&M Complete, Funding Identified
  - Need CNSF policy to drive Standard Logs (minimum required/expected)
- CDS & Experts Updates (pushed to ship)
  - SHIPMAIN driven OR Periodic (updates pushed on certain dates)
- Deckplate IPARs
  - AoA needed to pursue best course to proceed
- Draft CFFC and SWE DS and RM requirements
- ORSTARS Policy

ICAS RM
Cost Comparison and Average

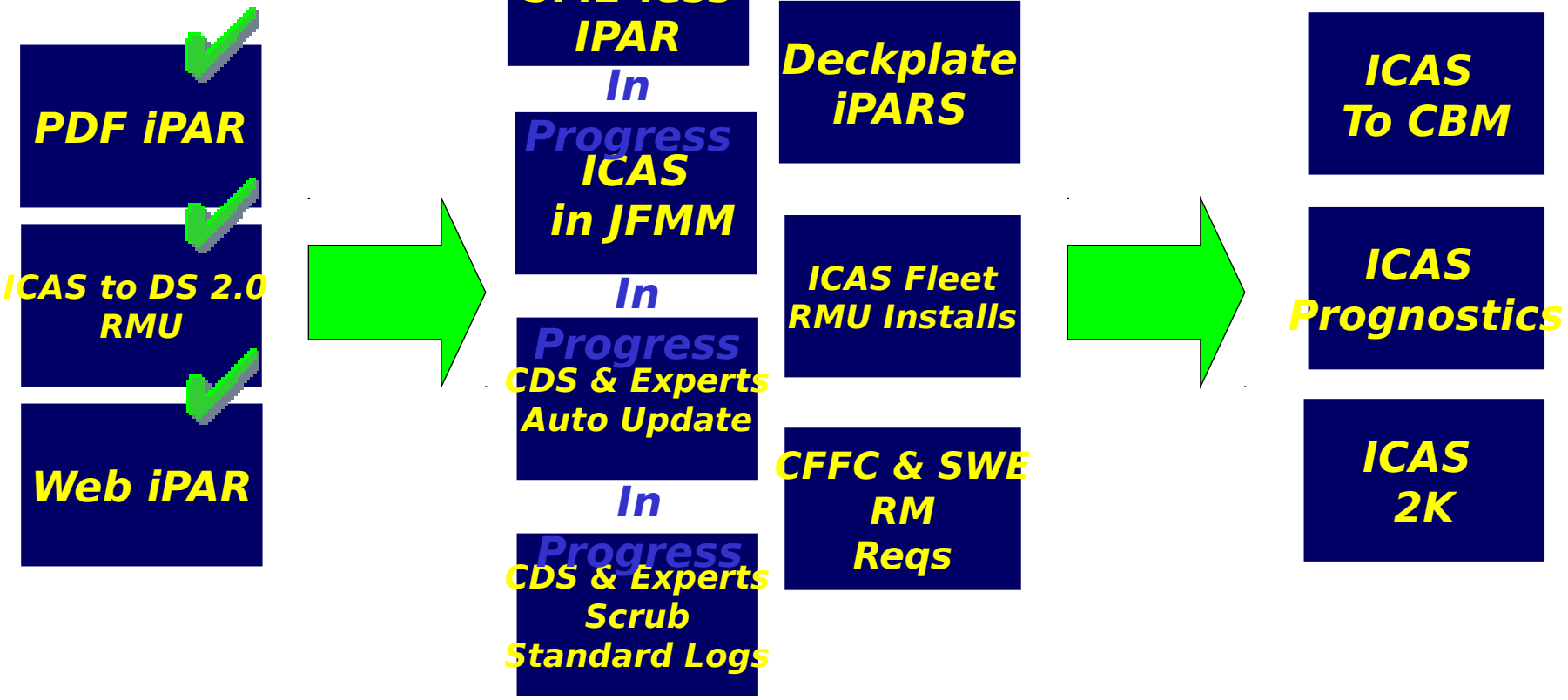


Two-Year Cost Averages

- ICAS Average Per-Ship Cost = $90k per year
- Non-ICAS Average Per-Ship Cost = $154.5k per year

Significant Maintenance Savings Can Be Realized Using The ICAS System

Where Are We Going?

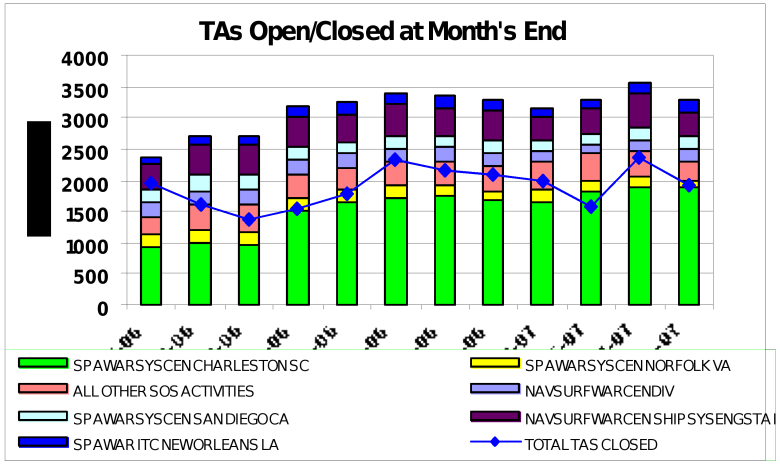


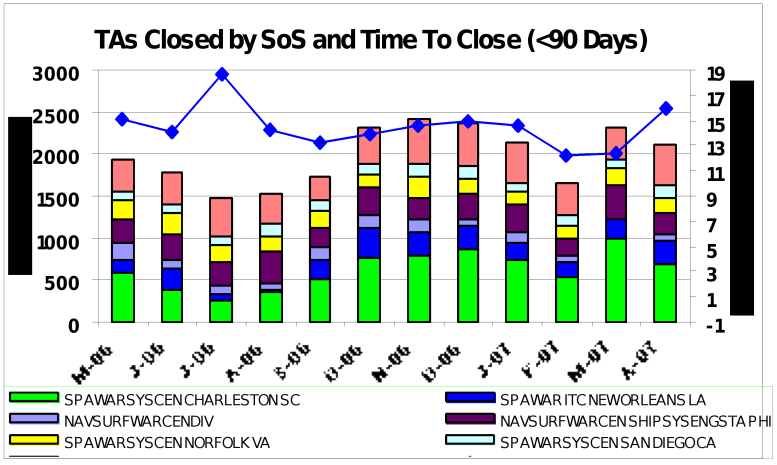
Mirror this Functionality in C5I & Others…

Accomplish by Ship Class…
End State: Predictive Maintenance by Remote/Condition Monitoring

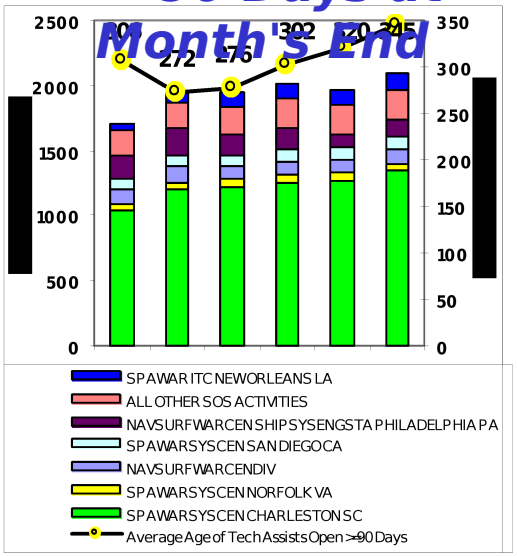
DS BRIDGE PLOTS

SWE DS Process Metrics BP

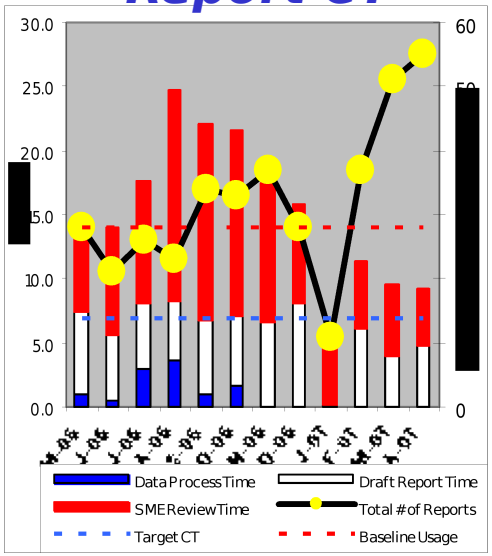



TAs Closed by SoS and Time To Close (<90 Days)
SPAWARSYSCEN CHARLESTON SC
SPAWAR ITC NEW ORLEANS LA
NAVSURFWARCENDIV
NAVSURFWARCEN SHIPSYSENGSTA PHI
SPAWARSYSCEN NORFOLK VA
SPAWARSYSCEN SAN DIEGO CA

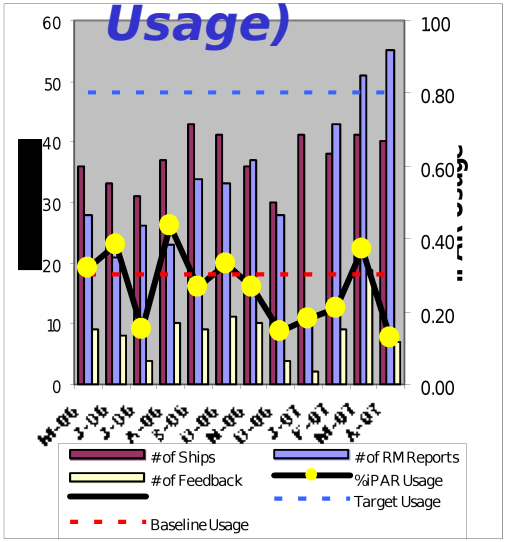
TAs Open >=90 Days at Month's End


SPAWAR ITC NEW ORLEANS LA
ALL OTHER SOS ACTIVITIES
NAVSURFWARCEN SHIPSYSENGSTA PHILADELPHIA PA
SPAWARSYSCEN SAN DIEGO CA
NAVSURFWARCENDIV
SPAWARSYSCEN NORFOLK VA
SPAWARSYSCEN CHARLESTON SC
Average Age of Tech Assists Open >=90 Days

RM - iPAR Report CT

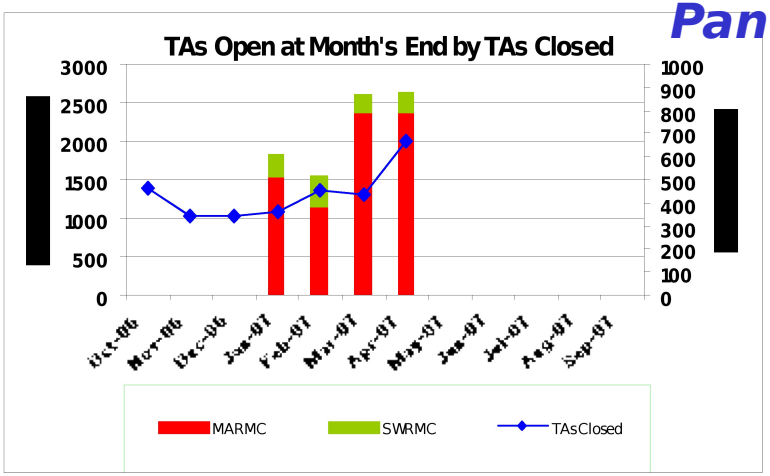


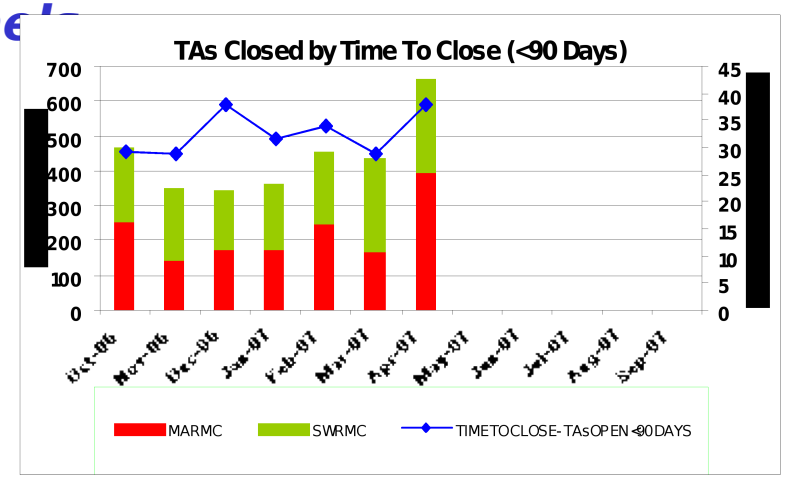
RM - Report Metrics (% iPAR Usage)

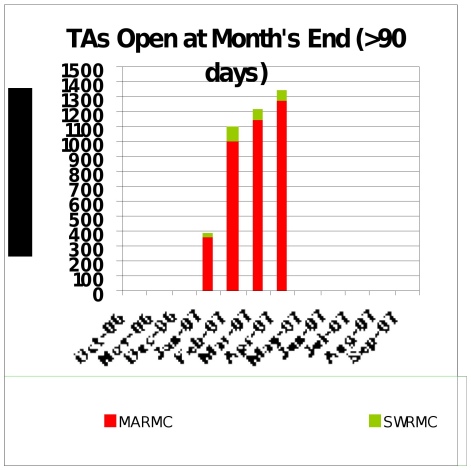


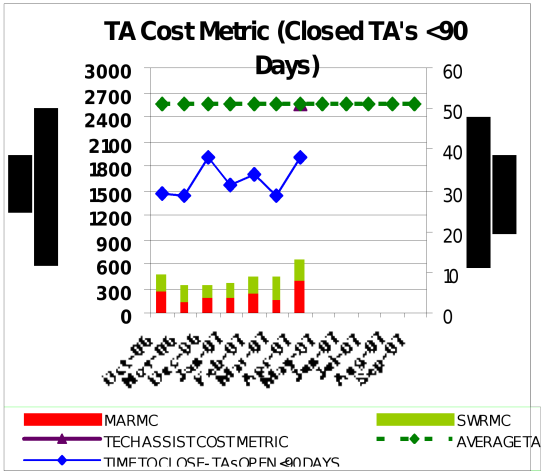
RMC TA BRIDGE PLOTS

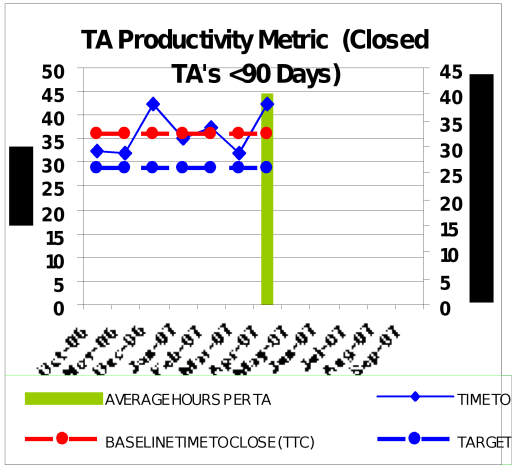
SWE - RMC TA Process Metrics Panels



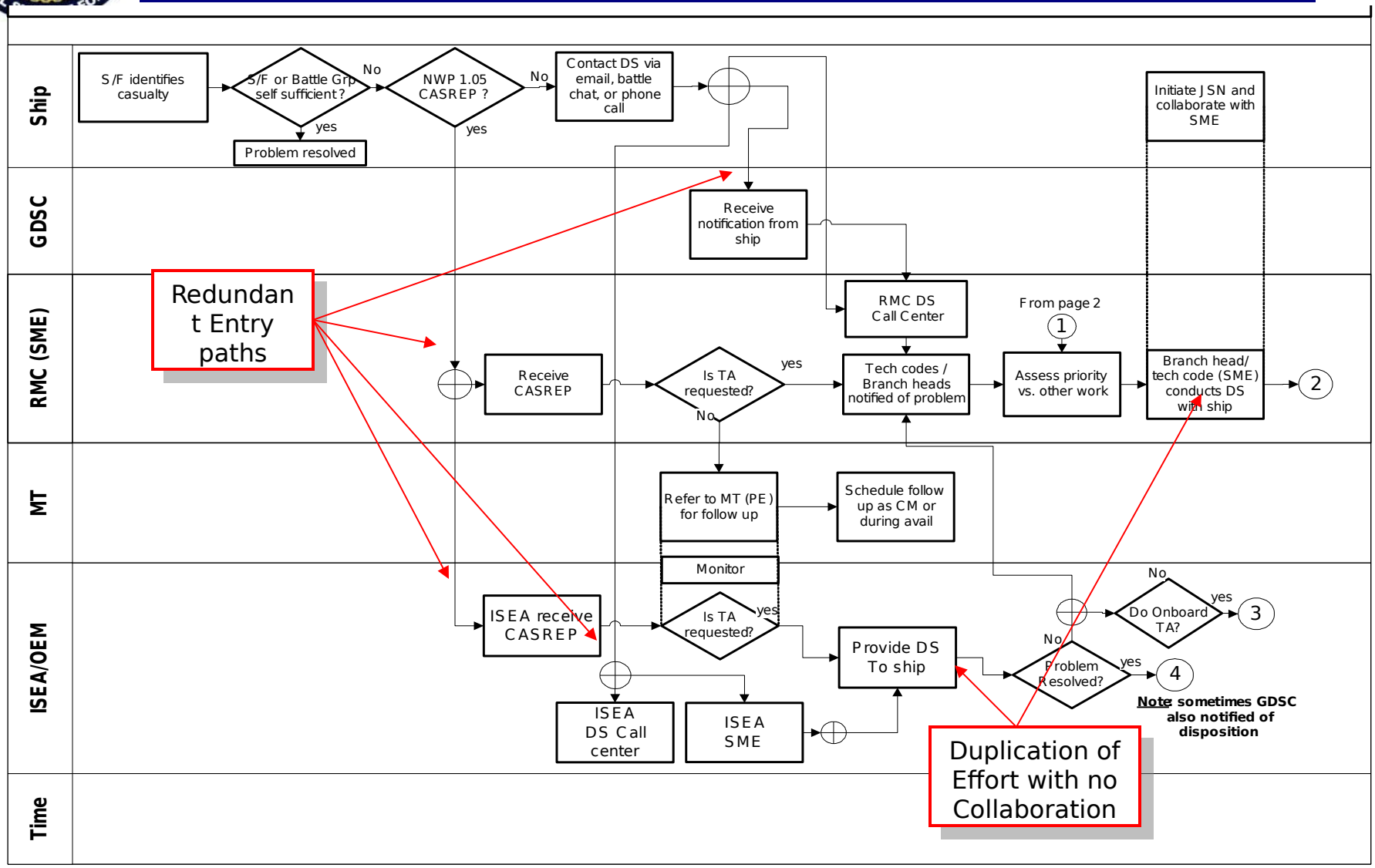




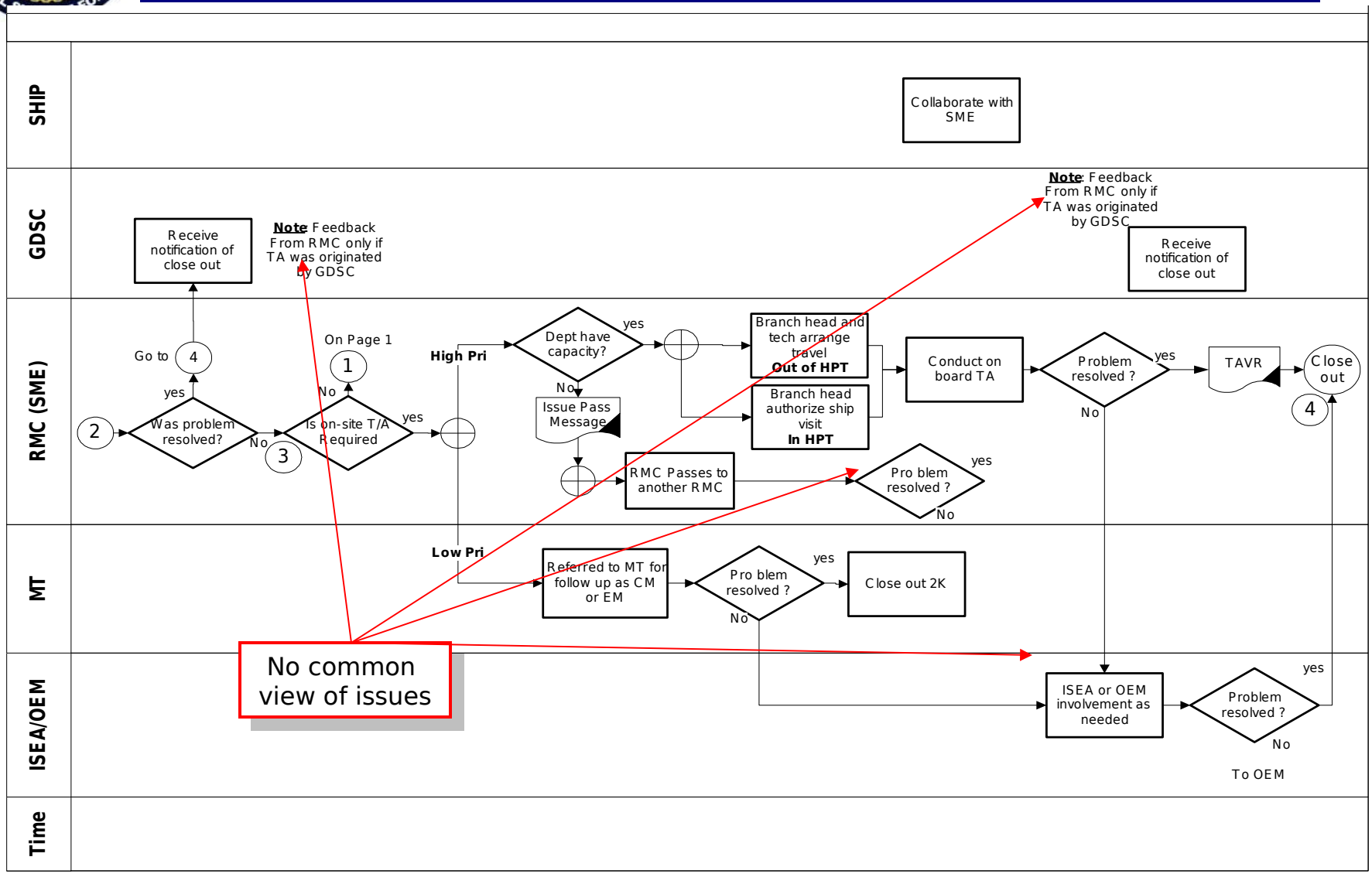




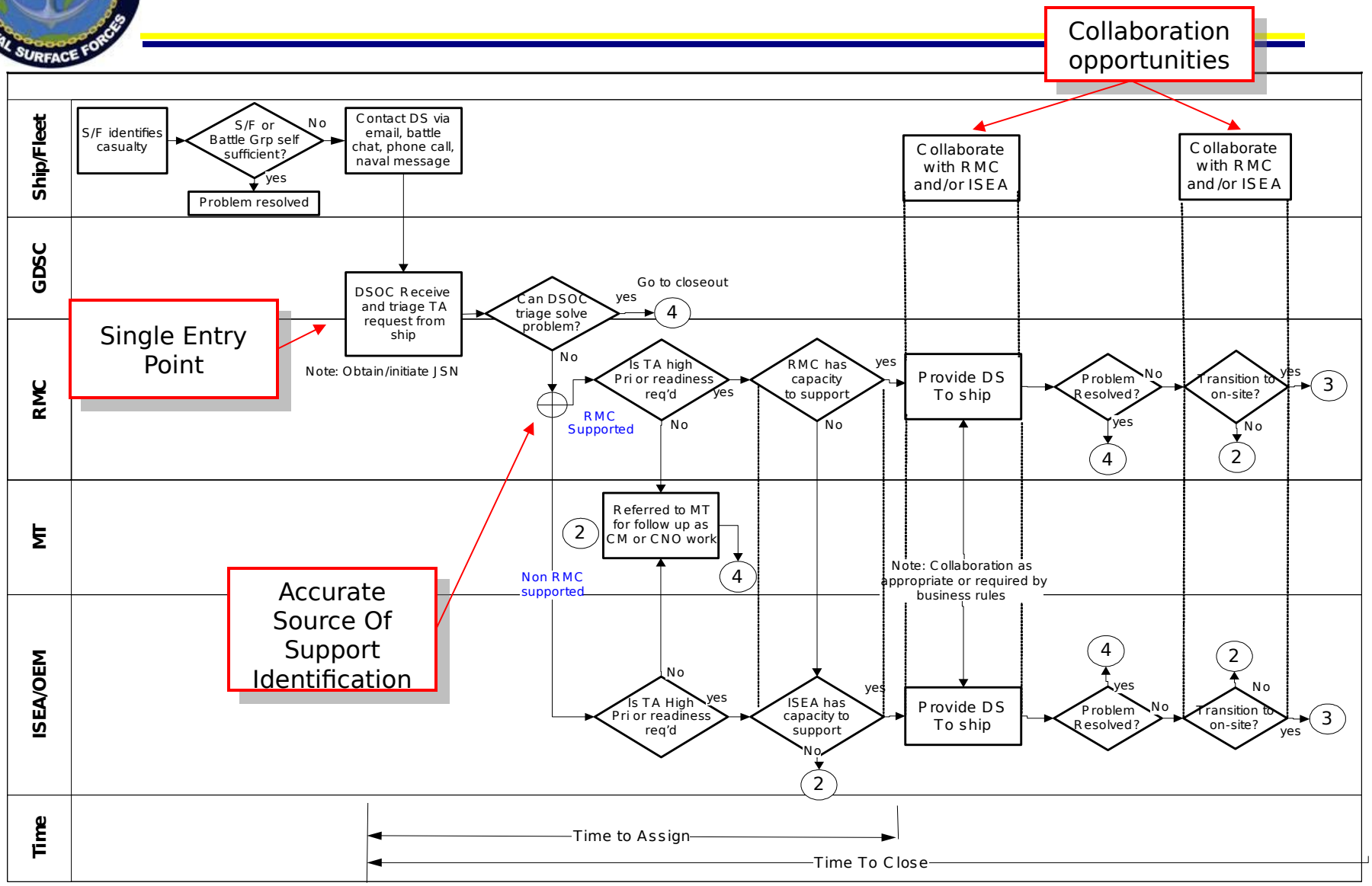
Tech Assist "As Is" Process



"As-Is" (continued)



Tech Assist "To Be" Process



Tech Assist Definition

- Existing
  - Help that surface ships, aircraft carriers, submarines, and craft receive when they are unable to resolve hardware or software deficiencies using their own ships resources or other means available within their Strike Group.
- New
  - Assistance provided to a surface ship, aircraft carrier, submarine, or craft relative to proper operation, maintenance, and/or logistics support of its equipment.
- Purpose of Change
  - Includes technical support not related to an operational deficiency (e.g. assistance with PMS; non-maintenance functions)
  - Removes HW/SW ambiguities and establishes baseline for common process regardless of system

Summary of Significant Changes Achieved in the "To-Be" Process

- Revised Tech Assist definition (Phase I)
- Clarification of transition language (Phase I)
- Elimination of stove-piped support approach (Phase I)
  - Codification of collaborative opportunities
- Single entry point for all tech assist requests (Phase IA)
- Alignment of RMC resources under a single administrative lead (RMC Enterprise) (Phase II)
- Tiered support strategy (Phase II)
  - Support provided by "best fit" provider
- Development of a shared data environment (Customer Relationship Management – CRM) (Ongoing)
- All Fleet Tech Assists resourced with FTA $$$ (TBD)
  - Realignment of O&MN from PEO to Fleet will be appropriate as new process is implemented

Implementation Strategy – An Iterative Approach

JFMM Update #1

- Publish new definitions
- Direct single entry point (Sept 07)
- Clarify SoS and remote/ on-site transition language

June 2007

JFMM Update #2

- Implement tiered support strategy
- Modify RMC "Geographic AOR" language

March 2008

JFMM Update #3

- Implement single CRM solution
- Adjust process and procedures as necessary

January 2009

"To Be" Process Pilot

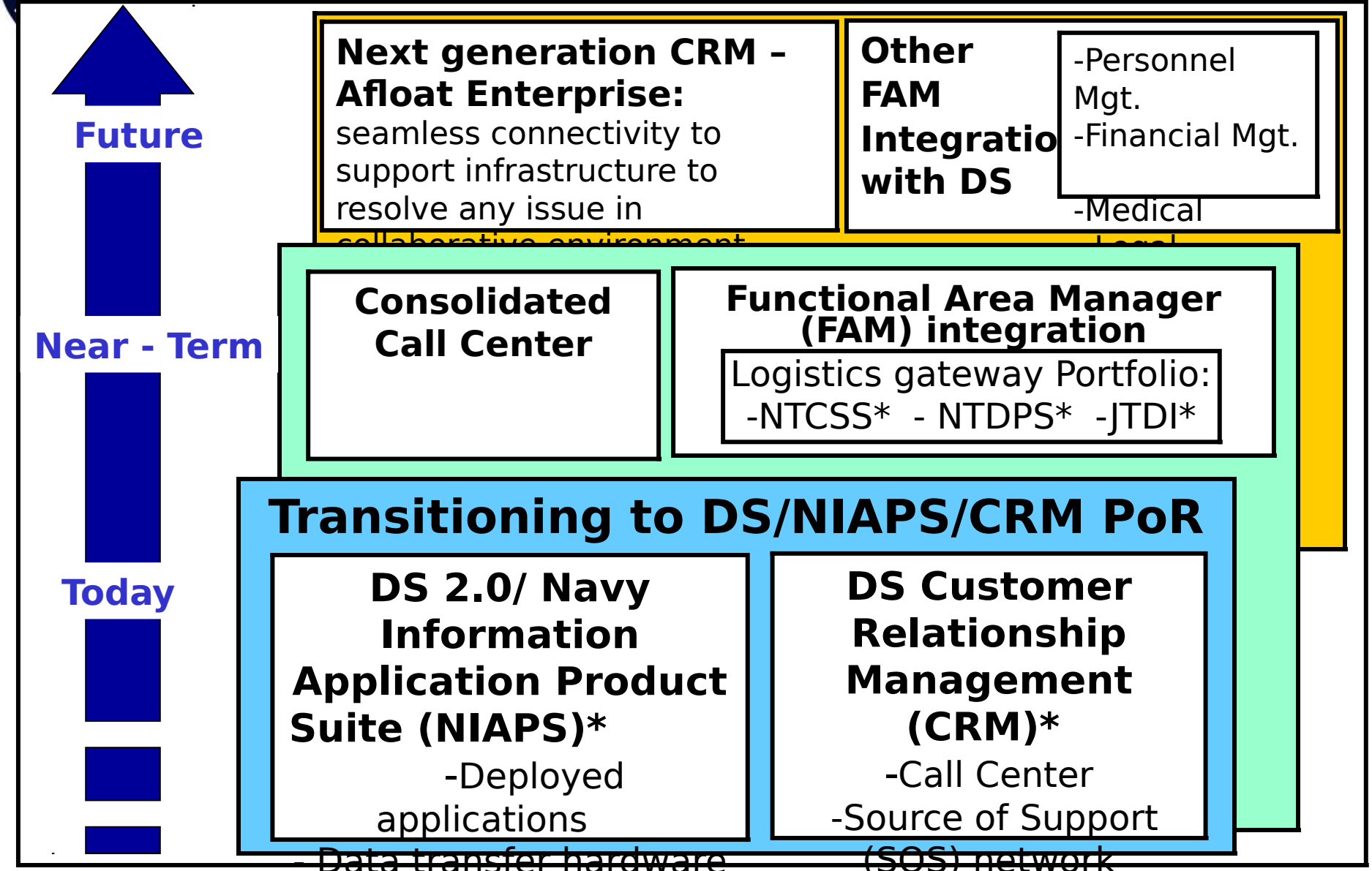
Update #1 Follow-on

- SYSCOM/PEO/ISEA policy alignment
- Evaluate compliance
- Measure SoS transition effectiveness
- System by system evaluation in support of tiered support strategy
- Monitor development of remote diagnostic/prognostic tools
- Pursue RMC tech support alignment

Update #2 Follow-on

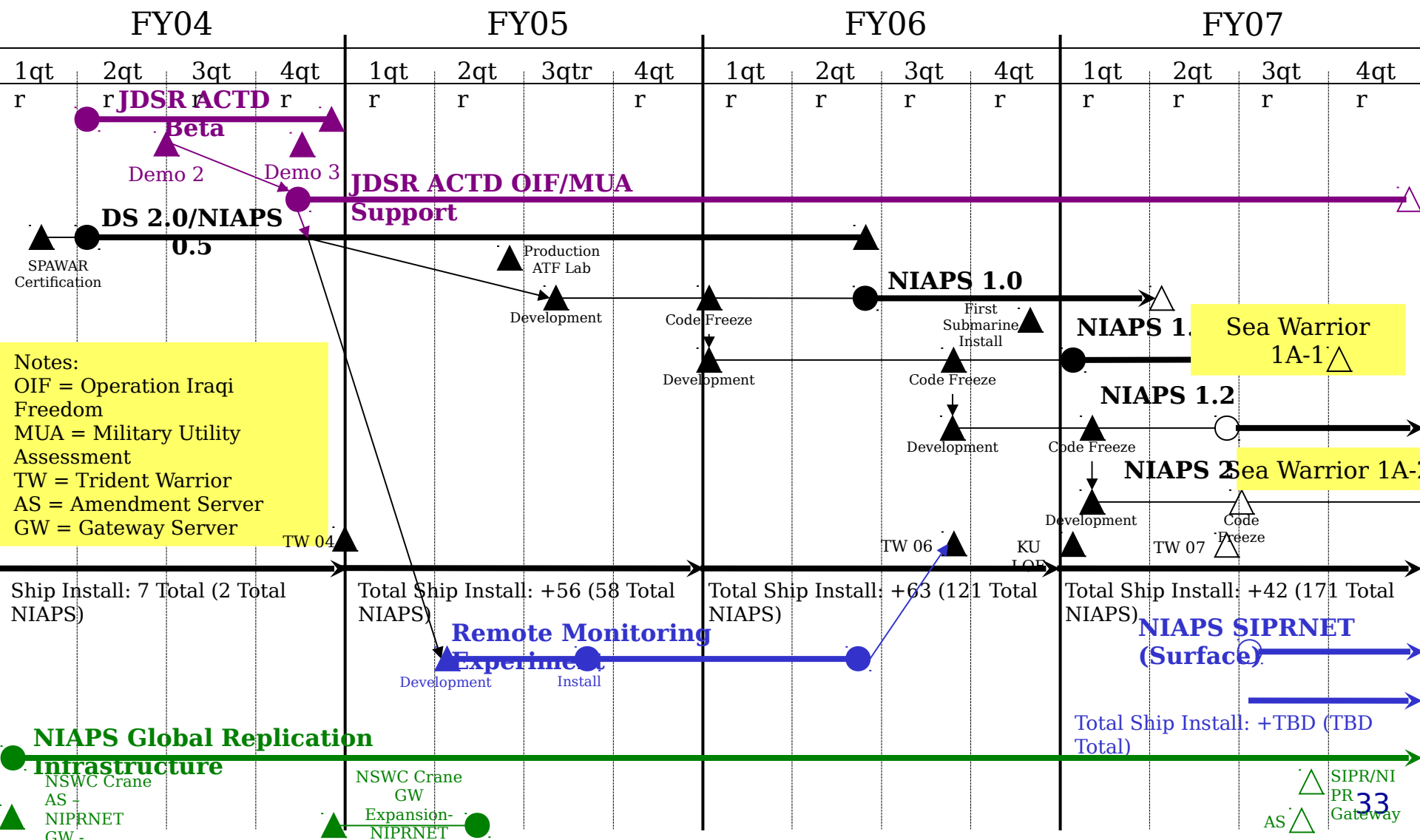
- SYSCOM/PEO/ISEA policy alignment
- Evaluate compliance
- Determine/execute infrastructure adjustments and refine budget submission/FTA allocation procedures based on tiered support model
- Monitor development of remote diagnostic/prognostic tools
- Pursue single CRM solution

DS/NIAPS/CRM PoR Proposed Product Evolution



*Registered in DOD IT Portfolio Repository-Dept of the Navy (DITPR-DON

NIAPS Schedule



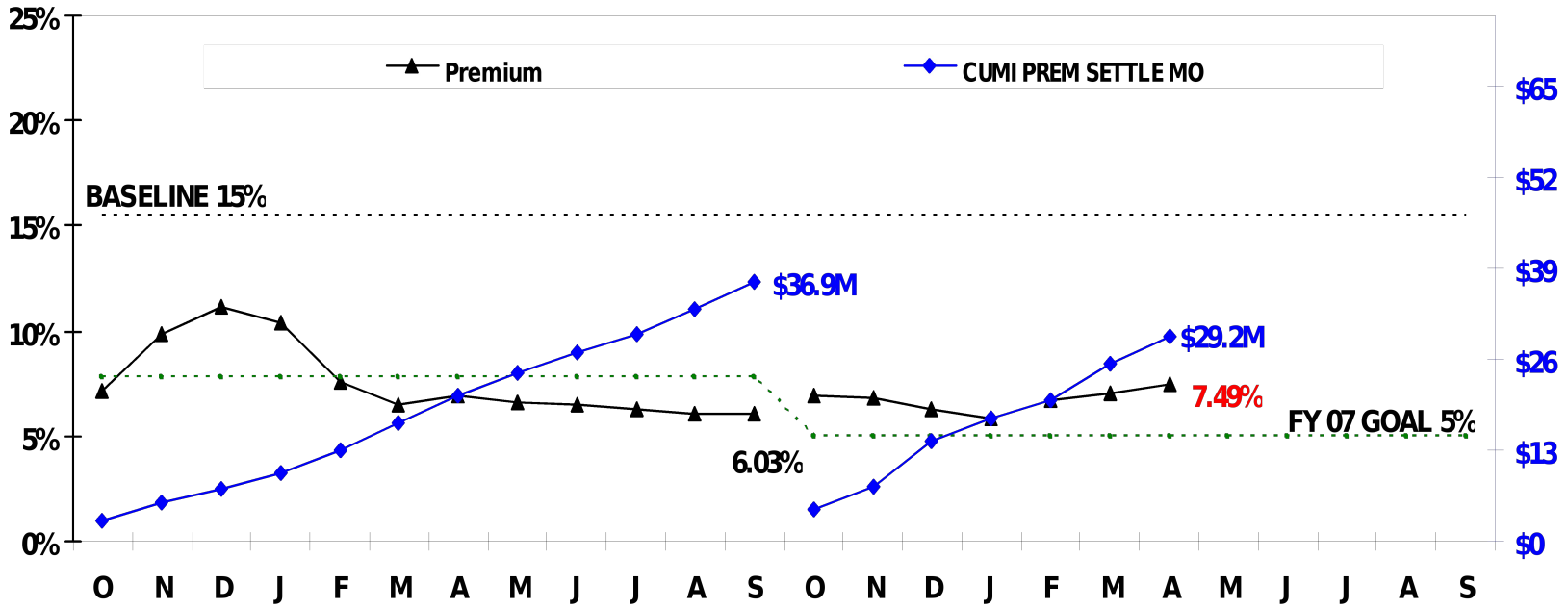
Maintenance Continuous Improvement Team

(Former SHIPMAIN)

FFC 5% Maintenance Challenge

- Recap of strategy
  - Execute Late Work Premiums Paid at 5% vs. 7.75%
  - Under execute emergent maintenance
  - Minimize port loading premiums through better work load scheduling
- Progress
  - Not as well as we would like, but still have potential to get close to achieving goal

SWE SMT Panel 11
CNO Late Work Premiums Paid



Definition:

- Late Work Premiums to Total Execution Cost % Indicator ()
- Cumulative Late Work Premiums ($) (◆)

Measures:

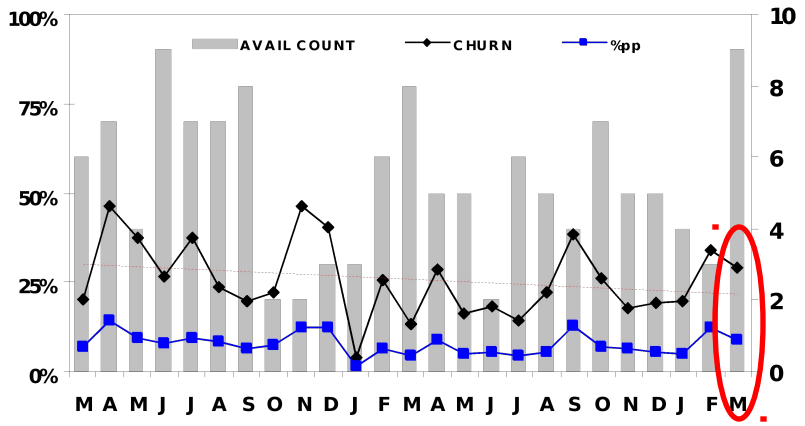
- Baseline is 15% FY07 Goal - 5%

Trends: 7.49%

(Upward 4 month trend from 5.84%)

Org	FY 07 GOAL	%PP	Premium $
SCRMC	5.0%	1.05%	$53.7K
MARMC	5.0%	5.87%	$11.9M
PSRMC	5.0%	5.35%	$0.5M
SWRMC	5.0%	7.75%	$6.9M
SERMC	5.0%	13.02%	$4.6M
PHRMC	5.0%	16.25%	$5.1M

Panel 9 End of Avail Churn



Definition:

- **Monthly capture dollar value of work items changed, deleted or added in a CNO work package from contract award until availability completion versus the dollars value of the work package at award for all avails that ended in the current measurement month.**

Measures:

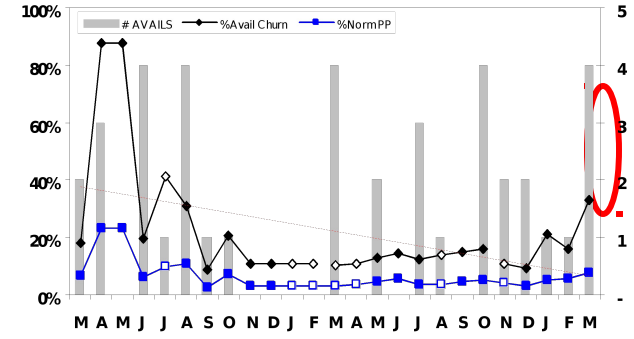
- **Baseline – 57.3% churn**
- **Entitlement – 21% churn**
  - **Mar 2007 data**
    - **29% Avail Churn**
    - **9.0% Norm Prem**

Trends/Variations/Analysis Comments:

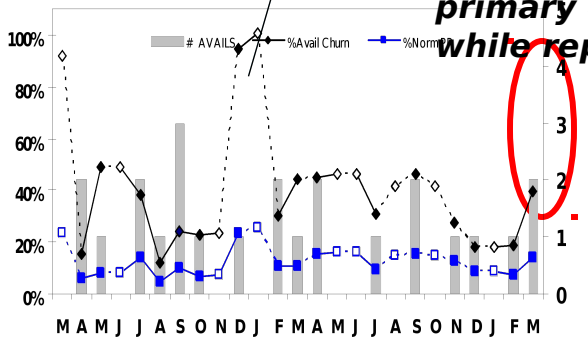
- **Churn decreased from Feb to Mar but still high.**
- **Feb 2007 cumulative premiums 12%. Mar 2007 cumulative premiums 9%.**
- **Feb 2007 spike caused primarily by USS Port Royal.**
- **Mar 2007 PP/Churn remain high due to Fort McHenry, Crommelin and Stephen W. Groves.**

Panel 9 End Avail Churn by Port

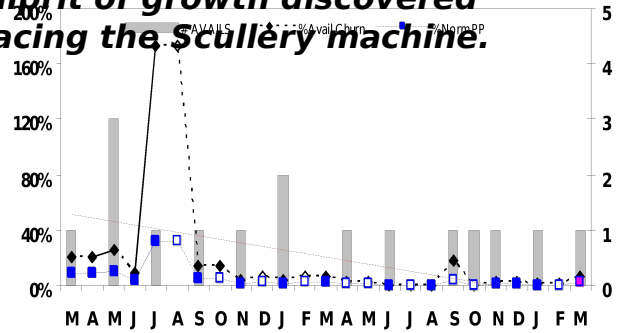
Spike due to the USS ROBERT G. BRADLEY (FFG-49) substantial growth work on many work items (i.e. GT Intakes, F/O Service Tanks, P/W Tanks, F/O Piping, CHT Piping) plus the primary culprit of growth discovered while replacing the Scullery machine.



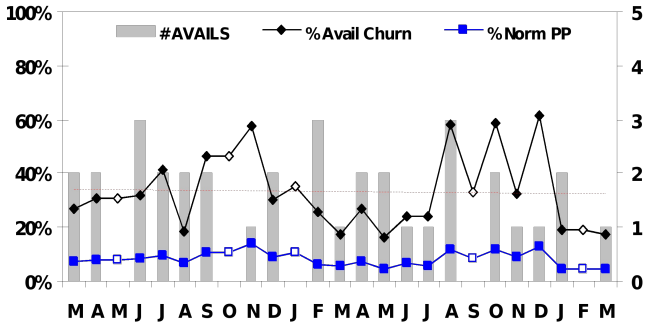
Norfolk



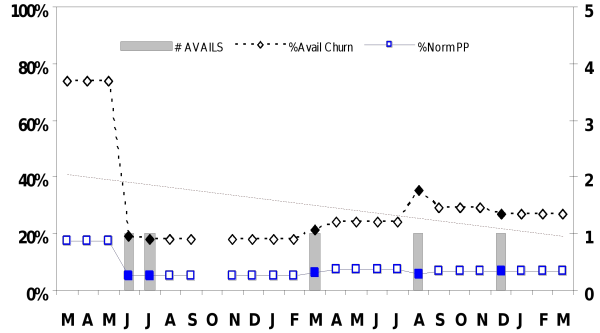
Mayport



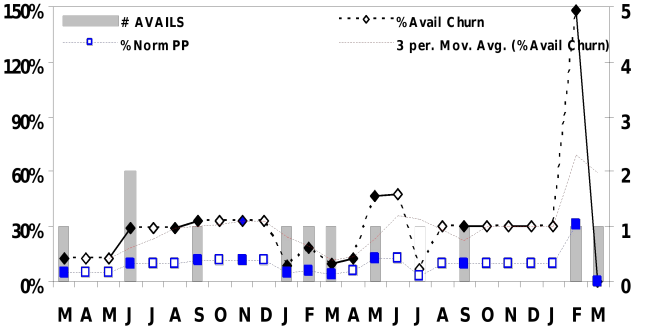
Ingleside



San Diego



Puget Sound



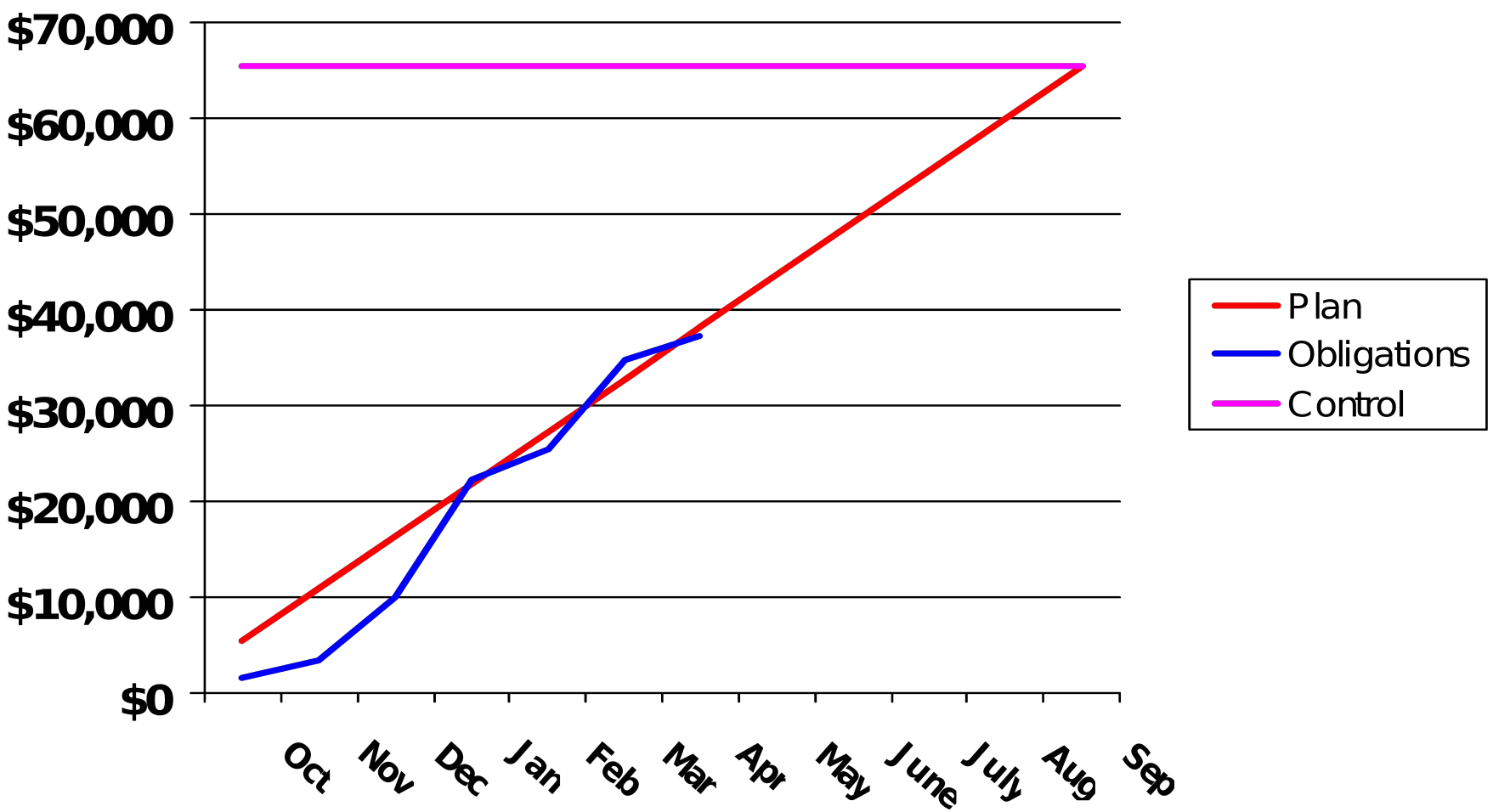
Pearl Harbor

Avails Completed Jan - Mar 2007

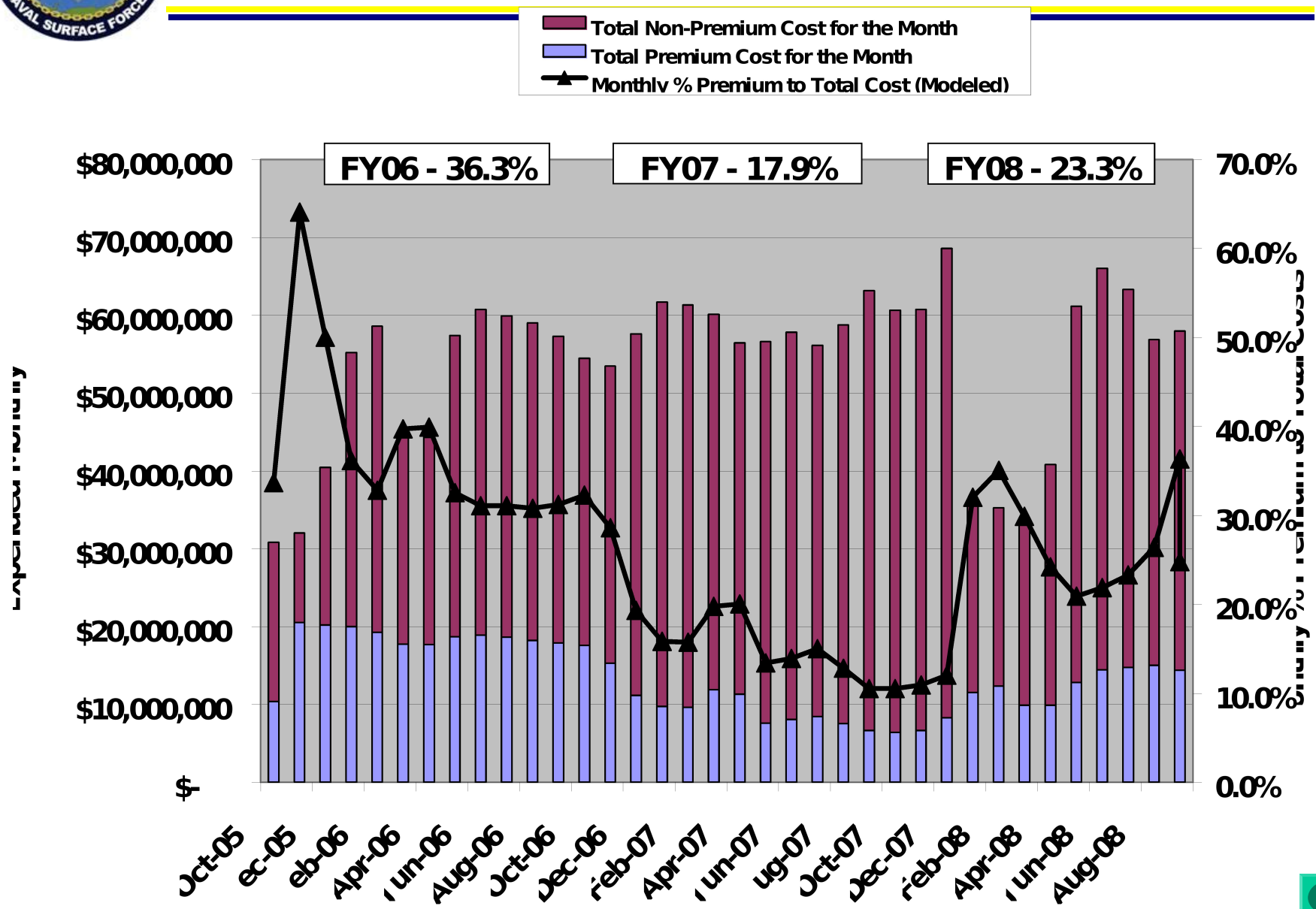
PORT	SHIP	AVAIL MONTH	%PP	% churn
MARMC	COLE	Mar-07	0.87%	1.18%
MARMC	ELROD	Mar-07	4.59%	6.07%
MARMC	FORT MCHENRY	Mar-07	10.66%	28.55%
MARMC	NICHOLAS	Mar-07	5.77%	7.65%
phrmc	CROMMELIN	Mar-07	11.02%	14.35%
SCRMC	CHAMPION	Mar-07	2.33%	3.04%
SERMC	JOHN L HALL	Mar-07	2.49%	2.32%
SERMC	STEPHEN W GROVES	Mar-07	20.32%	35.62%
SWRMC	VANDEGRIFT	Mar-07	4.40%	8.72%
MARMC	PORTER	Feb-07	5.52%	8.07%
PHRMC	PORT ROYAL	Feb-07	30.79%	73.92%
SERMC	DEWERT	Feb-07	7.67%	11.45%
SERMC	JOHN L HALL	Feb-07	6.54%	7.39%
MARMC	SAN JACINTO	Jan-07	5.30%	10.62%
SCRMC	DEFENDER	Jan-07	0.42%	0.64%
SWRMC	MCCAMPBELL	Jan-07	4.36%	8.00%
SWRMC	PELELIU	Jan-07	4.55%	10.04%
		% PP >5%		
		% Churn >21%		

CNSF ERATA Plan vs. Execution (ACTIVE)

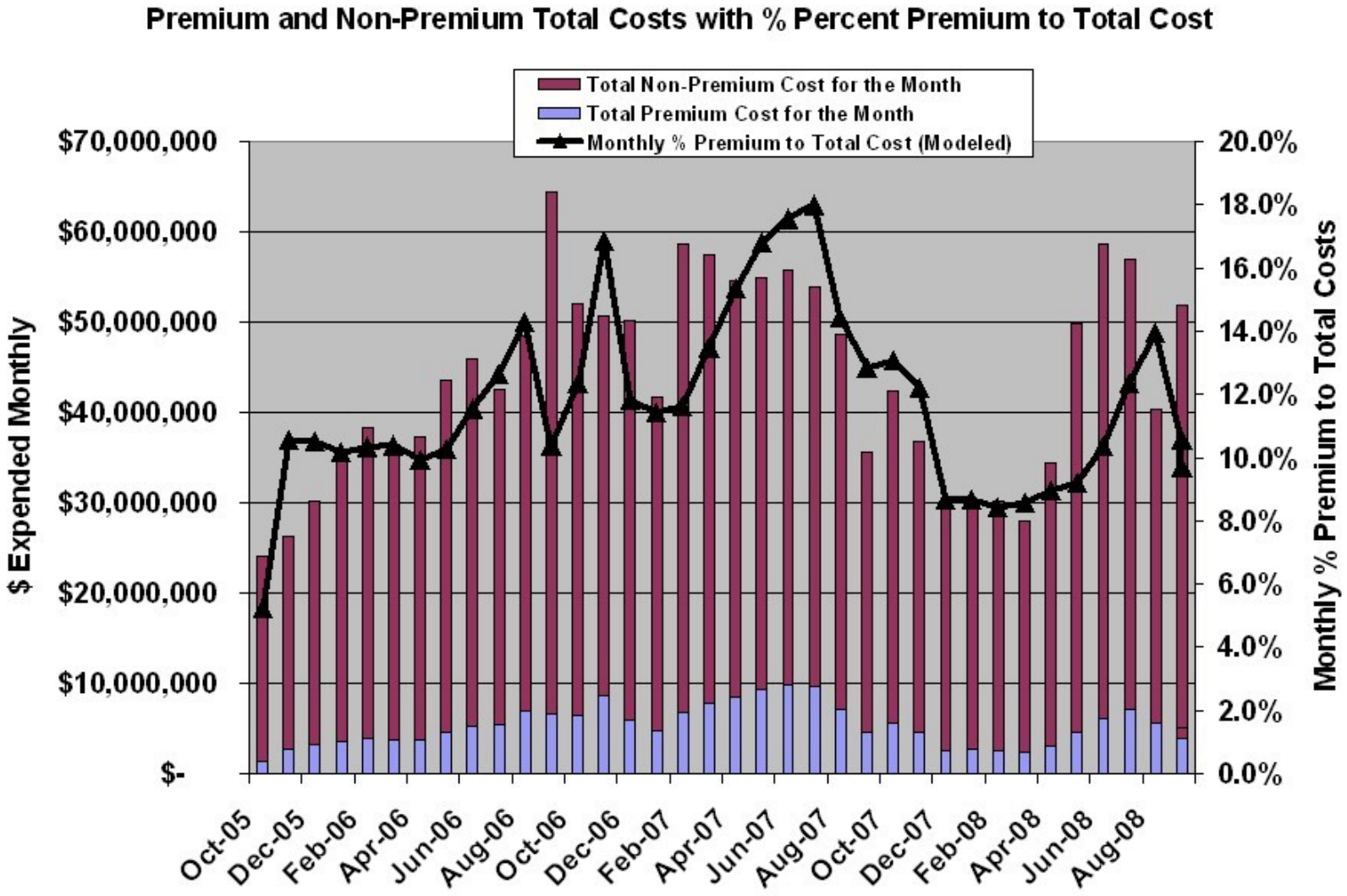
$$ In thousands



MARMC (old model)



MARMC (Validated model)



MFOM 2.0

PESTO

Total Force Integrated Readiness Model

Defense Readiness Reporting System-Navy

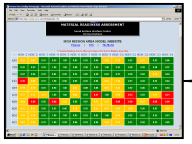
$

P E S T O

METs

- Track air targets
- Move units

MFOM 2.0



CG

DDG

LPD

MRAS

EFG

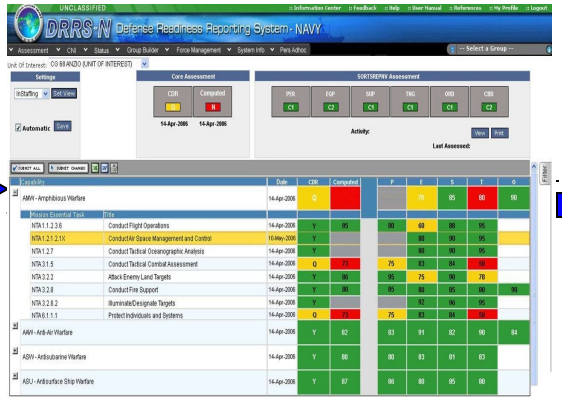
LSD

CVN

LHA

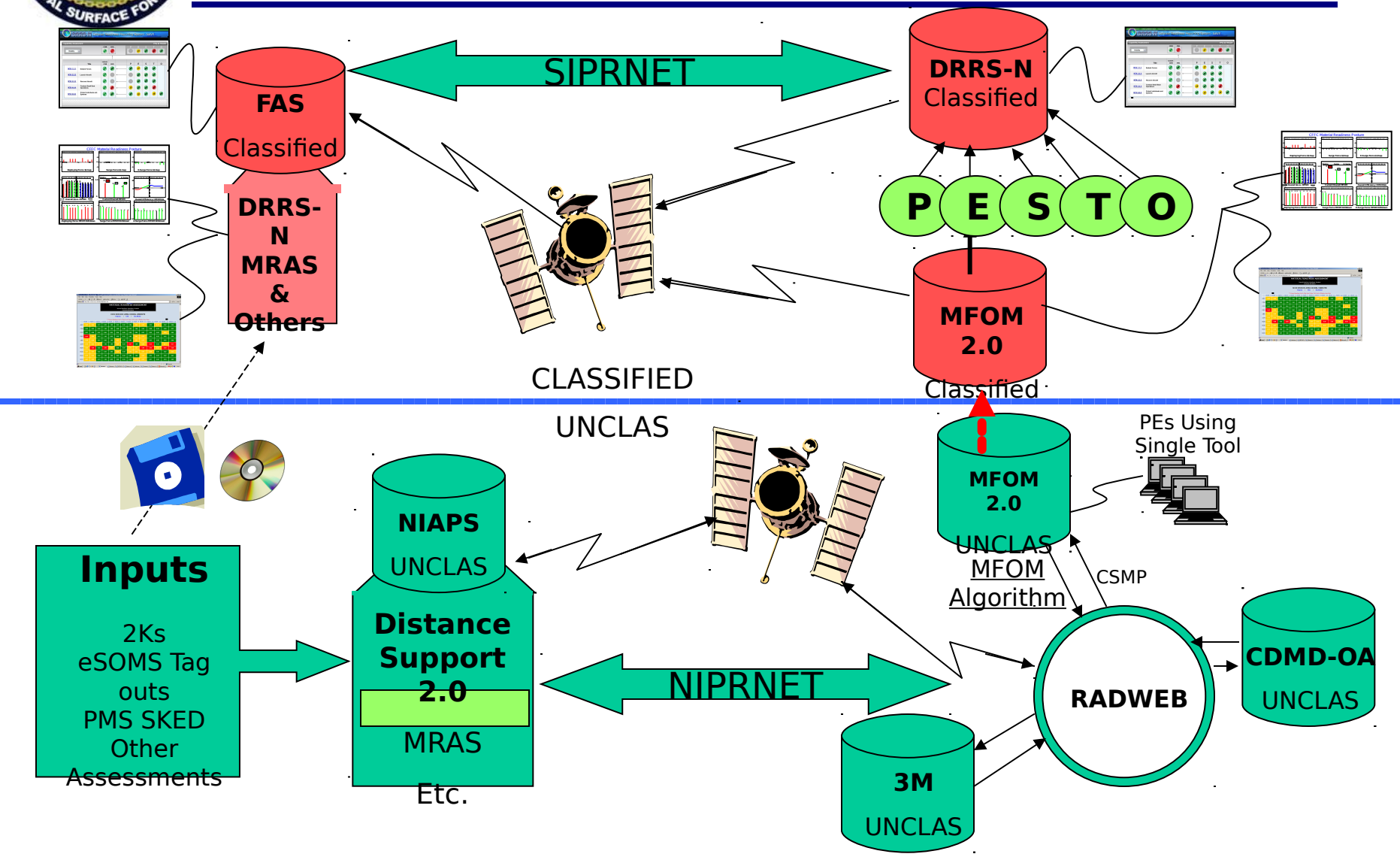
SSN

DRRS-N Screen



DRRS Screen

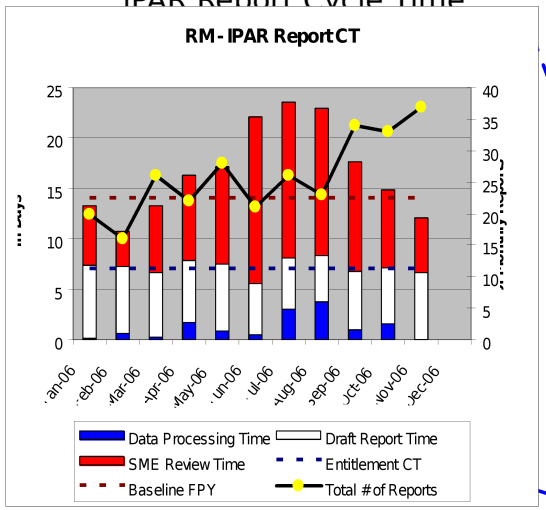
PESTO (Shipboard Metrics)



MFOM 2.0 Update

- **MFOM 2.0 MRAS installation is completed on the Bataan ESG.**
  The following ships are transmitting real-time MFOM 2.0 data:
  - USS Bataan
  - USS Vella Gulf
  - USS Shreveport
  - USS Oak Hill
  - USS Underwood
  - USS Nitze
- **MFOM 2.0 is installed on the Nimitz CSG**.
  - USS Princeton
  - USS John Paul Jones
  - USS Chaffee
  - USS Higgins
  - USS Pinckney
- Current plan is to install on departing CSG\ESG prior to deployment.

Remote Monitoring FPY - Metric Linkage



FFC Equipment Readiness

E Equipment MFOM2.0 20%

Req. Equipment Index Value based on Mission NTAs

Mission Assignments

Ship equipment NTAs (125 possible NTAs)

Equipment Index Value based on MFOM Algorithm

MFOM Algorithm

Equipment Operational Capability (EOC)

Impact
PRI 1 – Mandatory
PRI 2 – Essential
PRI 3 – Highly Desirable
PRI 4 - Desirable

Time Accelerator Unit Value* Weeks

Maintenance Form 2 Kilo

ICAS IPAR Data

RM Process

Process driver metrics

Web Based IPAR "To Be" Process

Readiness Linkage to MFOM and SWE process metrics

P E S T O

Existing Process

New Process

CNSF N43
Current Issues

CASREPS

- Follow established matrix
- Not a source of additional funding
  - No more bottomless pot mentality
- C2 will be worked so as not to incur a premium
  - Required to document material readiness
  - Just another job
    - Should be a high priority job for future CMAV
    - Right time and right price

INSURV

- Snapshot of true condition
  - Document current material condition accurately
    - A well maintained CSMP is a must
  - Minimum equipment must be met
    - Plan and execute with current CMAV funding
    - Do not anticipate a plus up in funding
  - No INSURV preparations
    - Concentration on Ship's material condition should always be ongoing
    - Don't wait until on the horizon
    - Establish aggressive zone inspection programs
      - Current indications from INSURV point to a lack of completed or correctly completed PMS.
    - Part of S/F daily routine

INSURV

- New inspection sequence as of 1 Jun 2007.
  - Safety walkthrough day 1
  - U/W day 1 approx 12-1300
  - RTP day 2 (berthing can be a challenge)
  - Inport checks day 2-5, outbrief day 5
- CO will certify that all prior to u/w checks complete and min equipment is met.
  - U/W checks will verify if and how well accomplished
  - Increased emphasis on CSMP and 8 o'clocks
  - No longer have 2 days to clear RBO's, U/W demo success based on S/F maintenance before the MI

INSURV Takeaway

- Most significant and repeated INSURV takeaway is PMS
  - Ships are showing a continuing inability to perform PMS
    - Not completing checks
    - No rigorous spot check program
    - Not following the MRC steps

QUESTIONS ?

BACKUPS

Summary of Results

USS MCCAMPBELL (DDG-85)

MATERIAL INSPECTION 26 Feb – 2 Mar 07

Equipment Operating Conditions (EOC's)

Propulsion	🟡	0.79	Communications	🟡	0.64
Auxiliaries	🟢	0.84	Information Systems	🟢	0.83
Electrical	🟢	0.92	Aviation	🟢	0.81
Damage Control	🟡	0.65	Supply/Habitability Material	🟢	0.88
Deck	🟡	0.79	NAVOSH	🟢	0.88
Anti-Submarine Warfare	🟢	0.81	Environmental Protection	🟡	0.75
Operations	🟡	0.64	Ventilation	🟢	0.86
Weapons Systems	🟢	0.83	Repair	⚪	NA
Mine Warfare	⚪	NA	Diving	⚪	NA
Navigation	🟢	0.90			

Demonstration Scores

Full-Power	🟢	0.87	Self-Defense DTE	🟡	0.68
Quick-Rev Ahead	🟢	1.00	AAW DTE	🟢	1.00
Quick-Rev Astern	🟢	1.00	ASW DTE	🟢	0.83
Steering	🟢	0.93	Mine-Hunting Demo	⚪	NA
Anchoring	🟢	0.95	Mine-Sweeping Demo	⚪	NA
Ballast	🟢	0.84			

Summary of Results

USS PRINCETON (CG-59)

MATERIAL INSPECTION 12-16 FEB 07

Equipment Operating Conditions (EOC's)

Propulsion	🟡	0.75	Communications	🟡	0.77
Auxiliaries	🟡	0.71	Information Systems	🟢	0.96
Electrical	🟢	0.82	Aviation	🟡	0.74
Damage Control	🔴	0.37	Supply/Habitability Material	🟢	0.81
Deck	🟡	0.78	NAVOSH	🟡	0.72
Anti-Submarine Warfare	⚪	0.89	Environmental Protection	🟢	0.80
Operations	🟡	0.63	Ventilation	🟡	0.71
Weapons Systems	🟡	0. 78	Repair	⚪	NA
Mine Warfare	⚪	NA	Diving	⚪	NA
Navigation	🟢	0.90			

Demonstration Scores

Full-Power	🟡	0.60	Self-Defense DTE	🔴	0.52
Quick-Rev Ahead	🟢	0.82	AAW DTE	🟢	0.87
Quick-Rev Astern	🟢	0.83	ASW DTE	🟡	0.63
Steering	🟡	0.77	Mine-Hunting Demo	⚪	NA
Anchoring	🟢	0.85	Mine-Sweeping Demo	⚪	NA
Ballast	⚪	NA			

Summary of Results

USS HUE CITY (CG-66)

MATERIAL INSPECTION 11 - 15 SEP 06

Equipment Operating Conditions (EOC's)

Propulsion		0.64	Communications		0.82
Auxiliaries		0.56	Information Systems		0.76
Electrical		0.75	Aviation		0.80
Damage Control		0.66	Supply/Habitability Material		0.77
Deck		0.81	NAVOSH		0.83
Anti-Submarine Warfare		NA	Environmental Protection		0.82
Operations		0.66	Ventilation		0.74
Weapons Systems		0.78	Repair		NA
Mine Warfare		NA	Diving		NA
Navigation		0.88			

Demonstration Scores

Full-Power		0.00	Self-Defense DTE		0.76
Quick-Rev Ahead		0.00	AAW DTE		0.80
Quick-Rev Astern		0.00	ASW DTE		1.00
Steering		NA	Mine-Hunting Demo		NA
Anchoring		0.94	Mine-Sweeping Demo		NA
Ballast		NA			

Summary of Results

USS HOPPER (DDG 70)

MATERIAL INSPECTION 29 JAN - 02 FEB 07

Equipment Operating Conditions (EOC's)

Propulsion	🟢	0.86	Communications	🟢	0.88
Auxiliaries	🟡	0.75	Information Systems	🟢	0.90
Electrical	🟢	0.92	Aviation	🟡	0.76
Damage Control	🟢	0.80	Supply/Habitability Material	🟢	0.82
Deck	🟢	0.88	NAVOSH	🟢	0.94
Anti-Submarine Warfare	🟢	0.94	Environmental Protection	🟡	0.76
Operations	🟢	0.85	Ventilation	🟢	0.82
Weapons Systems	🟢	0.89	Repair	○	NA
Mine Warfare	○	NA	Diving	○	NA
Navigation	🟢	0.89			

Demonstration Scores

Full-Power	🟢	0.99	Self-Defense DTE	○	N/A
Quick-Rev Ahead	🟢	0.97	AAW DTE	🟢	0.94
Quick-Rev Astern	🟢	0.97	ASW DTE	🟢	0.98
Steering	🟢	1.00	Mine-Hunting Demo	○	NA
Anchoring	🟢	1.00	Mine-Sweeping Demo	○	NA
Ballast	○	NA			

Summary of Results

USS HARPERS FERRY (LSD-49)

MATERIAL INSPECTION 11 - 15 DEC 06

Equipment Operating Conditions (EOC's)

Propulsion	🟡	0.76	Communications	🟢	0.81
Auxiliaries	🟡	0.68	Information Systems	🟡	0.78
Electrical	🟡	0.77	Aviation	🟡	0. 73
Damage Control	🟡	0.66	Supply/Habitability Material	🟡	0.78
Deck	🟡	0.69	NAVOSH	🟢	080
Anti-Submarine Warfare	⚪	NA	Environmental Protection	🟡	0.63
Operations	🟢	0.89	Ventilation	🟡	0.74
Weapons Systems	🟢	0.93	Repair	⚪	NA
Mine Warfare	⚪	NA	Diving	⚪	NA
Navigation	🟢	0.95			

Demonstration Scores

Full-Power	🟡	0.77	Self-Defense DTE	🟡	0.79
Quick-Rev Ahead	🟢	0.91	AAW DTE	⚪	NA
Quick-Rev Astern	🟢	1.00	ASW DTE	⚪	NA
Steering	🔴	0.47	Mine-Hunting Demo	⚪	NA
Anchoring	🟢	0.93	Mine-Sweeping Demo	⚪	NA
Ballast	🟡	0.65			

Summary of Results

USS SQUALL (PC 7)

MATERIAL INSPECTION 27 Nov – 1 Dec 06

Equipment Operating Conditions (EOC's)

Propulsion	🟢	**0.87**	Communications	🟢	**0.93**
Auxiliaries	🟢	**0.88**	Information Systems	🟡	**0.78**
Electrical	🟢	**0.92**	Aviation	🟢	**NA**
Damage Control	🟢	**0.85**	Supply/Habitability Material	🟢	**0.88**
Deck	🟢	**0.91**	NAVOSH	🟢	**0.91**
Anti-Submarine Warfare	○	**NA**	Environmental Protection	🟡	**0.78**
Operations	🟢	**0.95**	Ventilation	○	**NA**
Weapons Systems	🟢	**0.92**	Repair	○	**NA**
Mine Warfare	○	**NA**	Diving	○	**NA**
Navigation	🟢	**0.99**			

Demonstration Scores

Full-Power	🟢	**0.87**	Self-Defense DTE	○	NA
Quick-Rev Ahead	🟢	**1.00**	AAW DTE	○	**NA**
Quick-Rev Astern	🟢	1.00	ASW DTE	○	**NA**
Steering	🟢	**0.94**	Mine-Hunting Demo	○	**NA**
Anchoring	🟢	**1.00**	Mine-Sweeping Demo	○	**NA**
Ballast	○	**NA**			